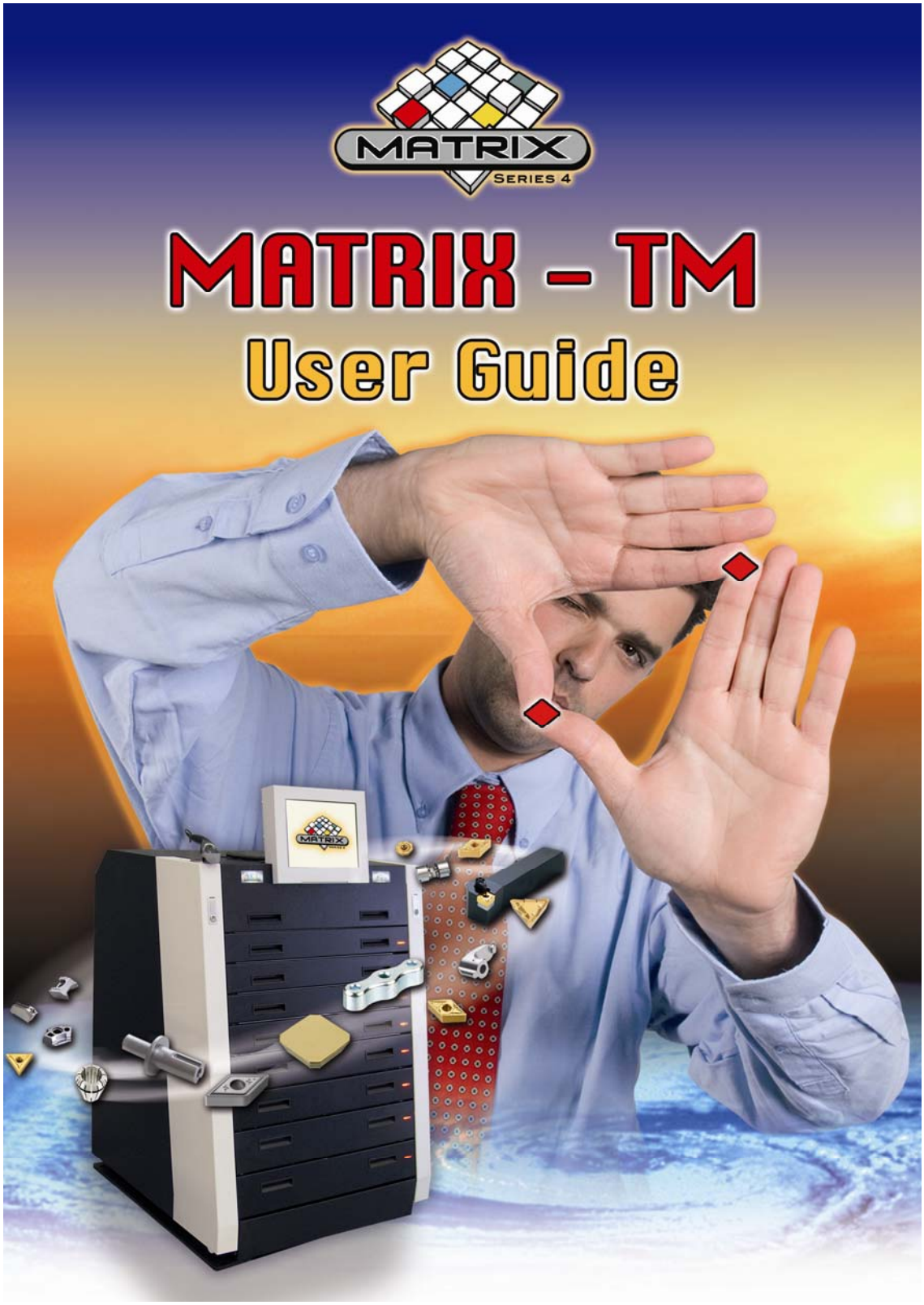

MATRIX
SERIES 4
MATRIX – TM
User Guide

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CHAPTER A: GETTING STARTED

1. INTRODUCTION

In this chapter you will find a short description of the MATRIX Hardware and Software components.

MATRIX allows you to MANAGE your cutting tools and any other kind of inventory.

MATRIX hardware is an ATD (Automatic Tool Dispenser).

MATRIX-TM is a software package comprised of two main modules:

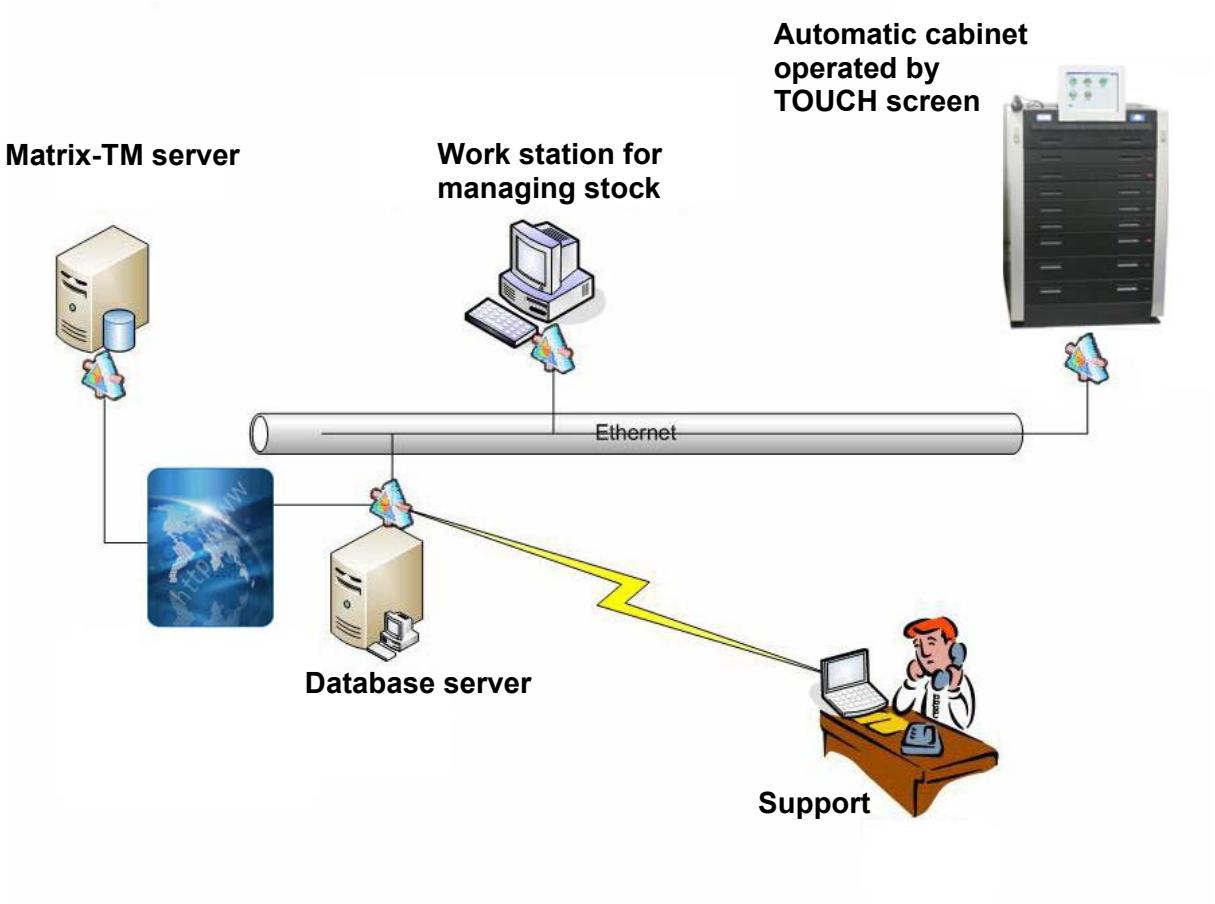
- MATRIX-TM MANAGE - the management module.
- MATRIX-TM TOUCH - the hardware interface system.

1.1 General Description of the System

The system combines an ATD with software that controls access to the ATD and management of the stock.

The software can manage an unlimited number of ATD units.

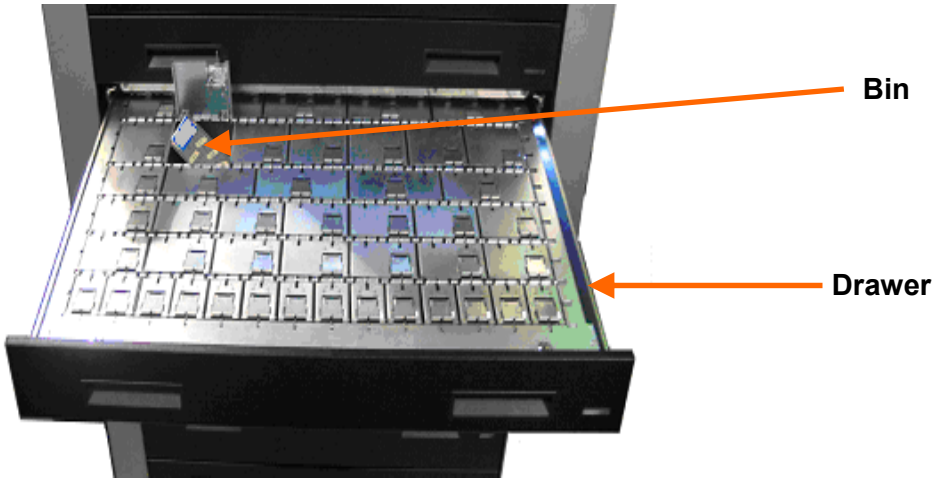
The user interface of the ATD is implemented by TOUCH screens, and the stock can also be managed from regular work stations.



For more detailed information regarding the system, please read this User Guide and the **MATRIX Hardware User Guide.**

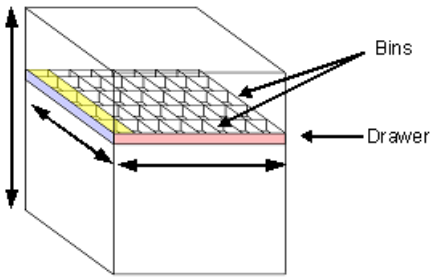
1.2 Hardware Overview

The MATRIX cabinet includes an integrated PC with its peripheral devices and a TOUCH screen on the front to operate the cabinet.

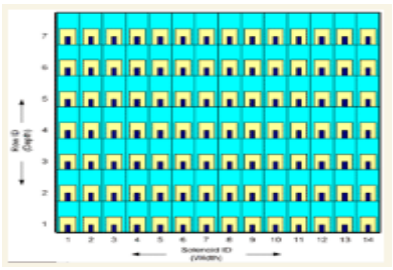


Cabinet

The cabinet houses multiple drawers that are locked, and released by a software command.



Drawer



- Each storage drawer is divided into bins.
- In **width**, the maximum number of bin columns is **14**.
  In **depth,** the maximum number of bin rows is **7**.
  Drawers are supplied in pre-fixed bin configurations, ranging from 20 bins per drawer up to maximum density 7*14 = **98** bins (as seen in the diagram).
- Drawers are supplied in 3 heights: 50, 75 and 100mm.



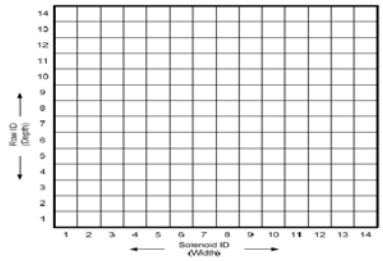
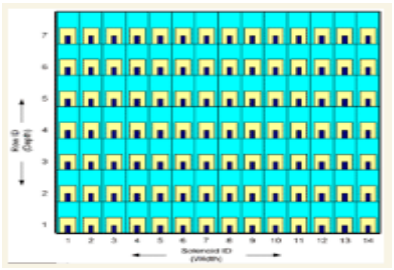
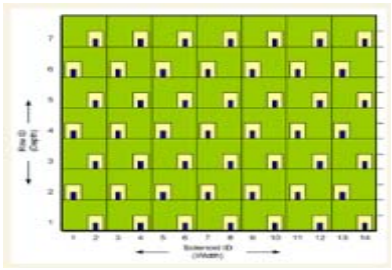
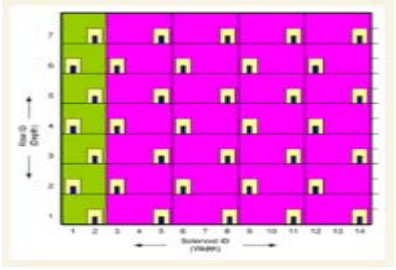
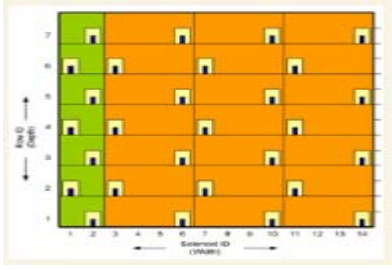
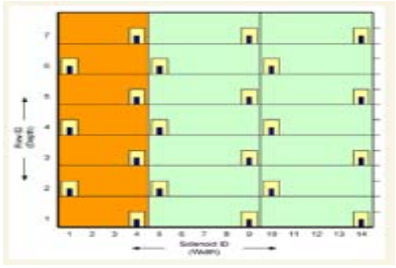
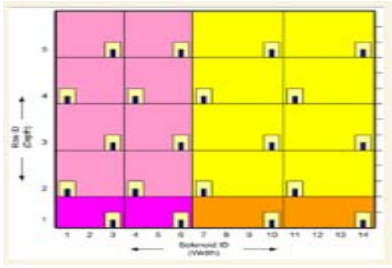
Note: There is an exception - where a drawer is not divided into bins (open drawer), it functions as a single or multiple virtual bins.

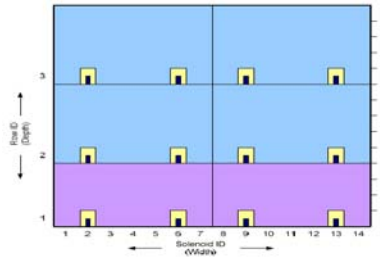
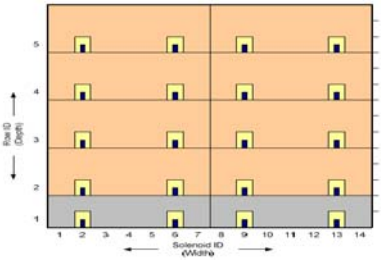
Bin

- A bin is the basic stock management unit.
- Each bin has a cover that is locked.
- Each bin location is defined according to its X-Y-Z coordinates, known as Bin Units.

MATRIX Drawer configurations:

Note: The table below displays all the available configurations for drawers in MATRIX cabinet drawer configurations. For more details, please refer to the documentation of hardware innovations.

Type D-0  (Drawer with no division to bins)	
Type D-1 	**Type D-2** 
Type D-3 	**Type D-4** 
Type D-5 	**Type D-6** 

Type D-11	Type D-12
	
(For MATRIX Series 4)	(For MATRIX Series 4)

1.3 Software Overview

The MATRIX-TM software package comprises the MANAGE and TOUCH modules, and server services.

The software enables a user to manage an unlimited number of defined MATRIX cabinets, control the access to the cabinets and to manage the stock.

MATRIX-TM MANAGE

It is a Graphic User Interface program:

- Installed on the MATRIX Cabinet PC and other PC workstation connected to the local network.
- The module enables the user to manage the item data in the MATRIX dispenser and execute stock operations according to user authorization.
- It can also be used as a stand alone stock management system for a manual warehouse like shelves and cabinets.
- The module supports multiple languages.

MATRIX-TM TOUCH

It is a Graphic User Interface program:

- Installed on the MATRIX Cabinet PC and operated by a touch screen attached to the cabinet. For testing or demonstration purposes, the module can also be installed on any PC and operated with no connection to an automatic cabinet.
- The module enables the user to open the drawers and bins of the MATRIX dispenser and execute a variety of stock operations, such as issuing, returning, receiving and counting according to defined user authorizations.
- The module supports multiple languages.
- Once the TOUCH module is installed, it starts automatically after the cabinet PC restarts.

Database Administration

It is a program with collection of database maintenance utilities:

- Backup, restore database and configure data replication.
- Control and monitor database jobs.
- Reset passwords.

2. INSTALLATION INSTRUCTIONS

This chapter contains basic instructions about how to install the MATRIX-TM software and how to START working with MATRIX-TM by operating **Hardware** and **Software** Tools.

Please read these instructions carefully to ensure fast and easy installation and operation of MATRIX.

2.1 System Requirements

Hardware

- Standard Intel Pentium 4 or compatible system.
- Minimum memory 512MB.
- Recommended: Hard disks of minimum 40 GB divided to 2 partitions 20GB each.



Note: If you want to have full functionality of the MATRIX-TM system you will also need a MATRIX cabinet.

Software

- Operating Systems
  - Windows 2000 Service Pack 4 (SP4)
  - Windows Server 2003
  - Windows XP SP2
  - Windows Installer 3.0 or higher.
  - Microsoft .Net Framework 2.0.
- **MSDE** SP4 (Microsoft SQL Server Desktop Engine) must be installed if the computer running MATRIX-TM is also running the SQL server.
- **Regional Settings** and formats have to be configured according to your local language through **Windows Control Panel**.
- It is highly recommended to fully update your windows from Windows Update before installation.



Note: You must have administrative rights on the computer to install MATRIX-TM and Database.

2.2 Decide where to Locate the Server

Before making installation of all the required software, determine where the database will be located. This section includes a review of all the software components and later on, describes two options for database location and the software to be installed on each of the destined stations.

Software components:

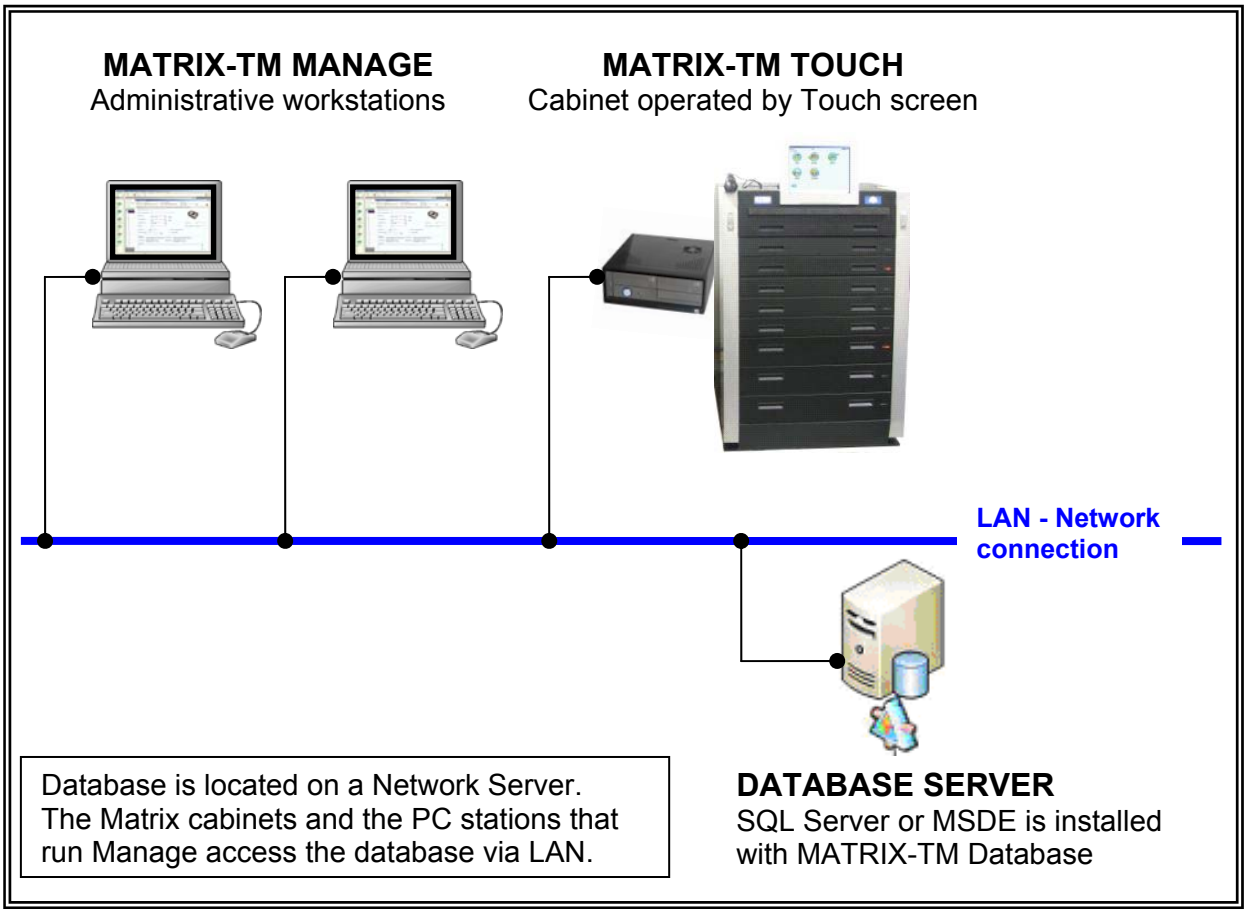
Microsoft .Net Framework 2.0: The free software that is required in order to run the Matrix Setup and using the Matrix software (run the file …\Dotnefx**dotnetfx.exe**).

MSDE SP4: The free software (Microsoft SQL Server Database Engine) that is required in order to work with databases (run the file …\MSDE**install.bat** as described in Chapter A: Install MSDE (section 2.3)).

Matrix-TM: Matrix Setup includes three modules (Server, Manage and Touch modules) that are selected in the installation process depending on the destined stations purpose (run the file …**SetupAll.msi** as described in Chapter A: Install MATRIX-TM Setup (section 2.4)).

2.2.1 SQL Database installed on the Server

The Database is located on the external server and is accessed through the network connection from the cabinet and workstations.


MATRIX-TM MANAGE
Administrative workstations
MATRIX-TM TOUCH
Cabinet operated by Touch screen
LAN - Network connection
Database is located on a Network Server.
The Matrix cabinets and the PC stations that run Manage access the database via LAN.
DATABASE SERVER
SQL Server or MSDE is installed with MATRIX-TM Database

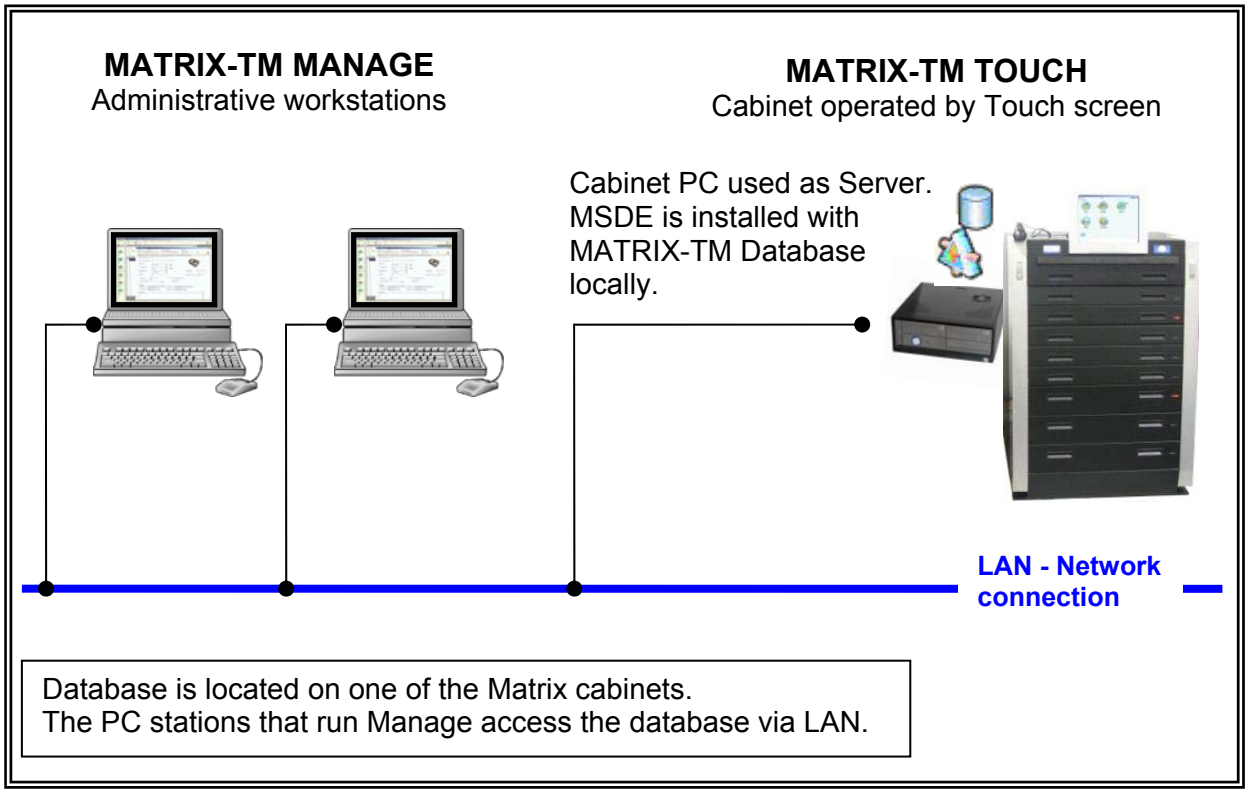
Server: 1) If not installed, install the Microsoft .Net Framework 2.0
2) If Microsoft SQL Server is not installed, install MSDE
3) During Matrix setup install **Server** and **Manage** modules. No need to install Touch module.

Cabinet: 1) The Microsoft .Net Framework 2.0 is usually installed. If not, install the program.
2) Install Matrix setup with **Manage** and **Touch** modules. No need to install Server module.

Workstation: 1) Install Microsoft .Net Framework 2.0
2) Install Matrix setup with **Manage** module **only**. No need to install Server and Touch modules.

2.2.2 SQL Database installed on the Cabinet PC

The Database is located on the cabinet PC which is used as a server and is accessed through the network connection from the workstations.


MATRIX-TM MANAGE
Administrative workstations
MATRIX-TM TOUCH
Cabinet operated by Touch screen
Cabinet PC used as Server.
MSDE is installed with
MATRIX-TM Database
locally.
LAN - Network connection
Database is located on one of the Matrix cabinets.
The PC stations that run Manage access the database via LAN.

Cabinet: 1) The Microsoft .Net Framework 2.0 is usually installed. If not, install the program.
2) The MSDE is usually installed. If not, install the program.
3) Install Matrix setup with **Server**, **Manage** and **Touch** modules.

Workstation: 1) Install Microsoft .Net Framework 2.0
2) Install Matrix setup with **Manage** module **only**. No need to install Server and Touch modules.

Note: If you decide to install SQL on a local PC, we recommend installing SQL on the cabinet PC.

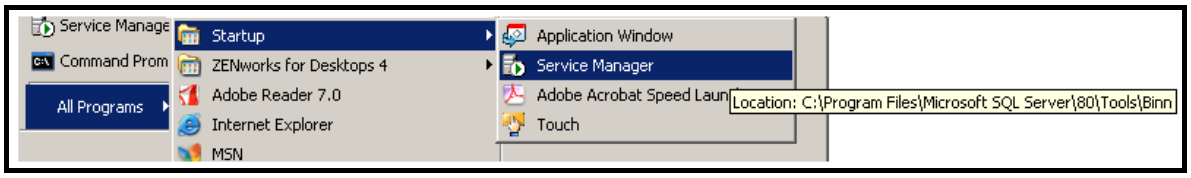
2.3 Install MSDE

In order to work on a local database, you need to Install MSDE SP4 as described below.

1. Open MATRIX-TM installation CD.
2. Open MSDE directory.
3. Run the **Install.bat** file (NOT the Setup.exe file!!!).

   Follow the installation instructions.

   This should locate the link to 'Service Manager' in the Windows Startup menu as on the following screen:



   After the installation is finished, you are ready to install MATRIX-TM software.

2.4 Install MATRIX-TM Setup

This section describes the steps for installing MATRIX-TM server and clients.
The installation includes Manage, Touch and Server modules. For proper selection of modules to install, please carefully read Chapter A: Decide where to Locate the Server (section 2.2).

Important! If the PC that you are using for installation already has installed a previous version of Matrix, it is necessary to remove the existing installation before running the new setup. To remove the old software, go to **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → MATRIX-TM Uninstall** and select the option **'Remove'** during uninstall.

Start installation:

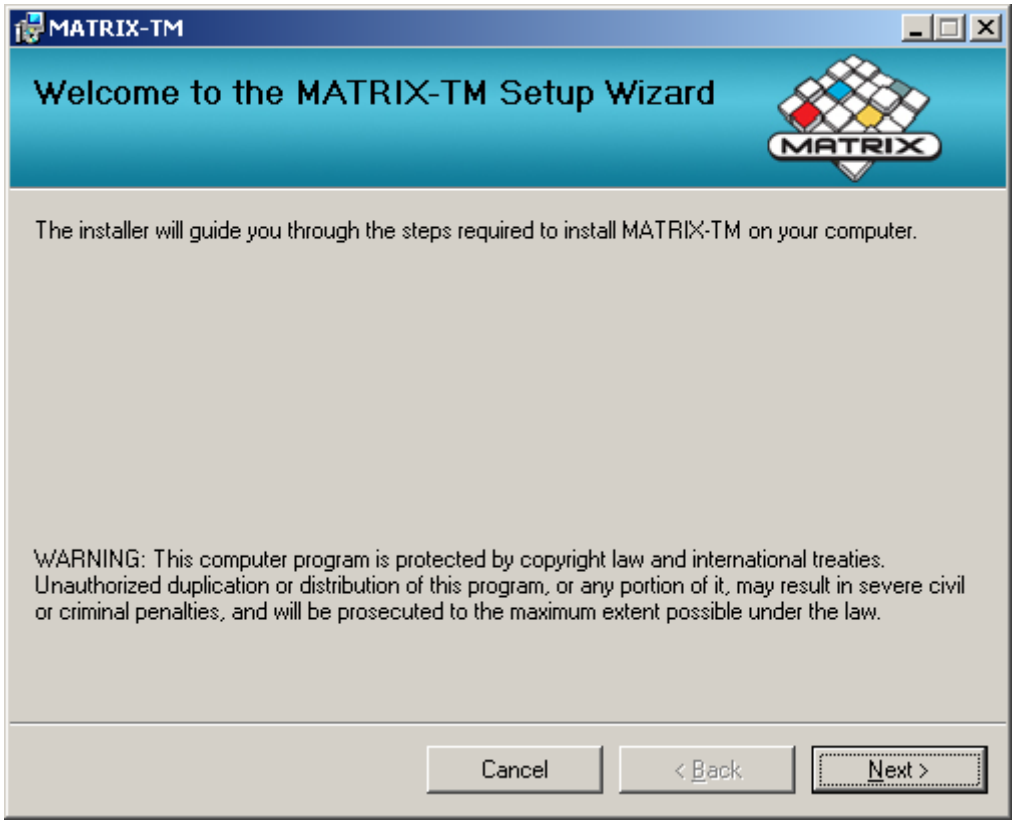
Note: Please notice that installation of MATRIX-TM software requires pre-installation of **Microsoft .Net Framework 2.0**. It might be that the PC's operating system already contains this software. If not, run the …\Dotnefx**dotnetfx.exe** file.

To install the MATRIX-TM software, follow these steps:

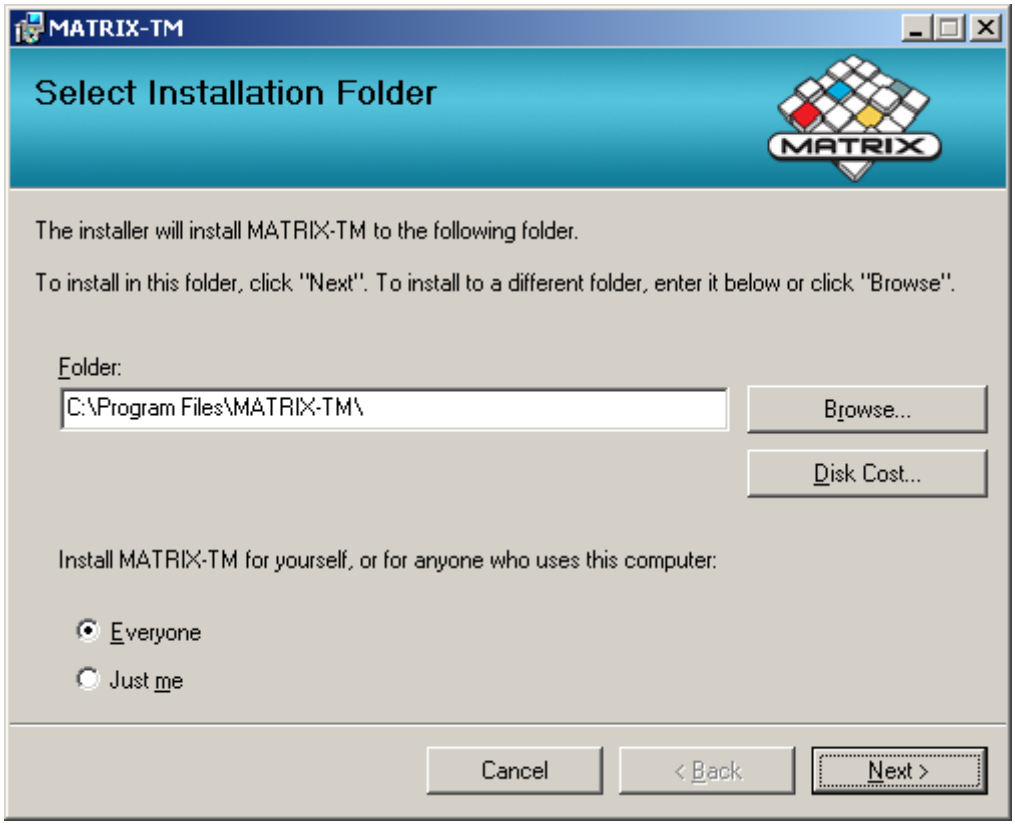
1. Open MATRIX-TM installation CD.
2. Run the **SetupAll.msi** file.
   Follow the installation instructions.

Note: If your CD player is set to AutoPlay mode, it will automatically run the installation program.

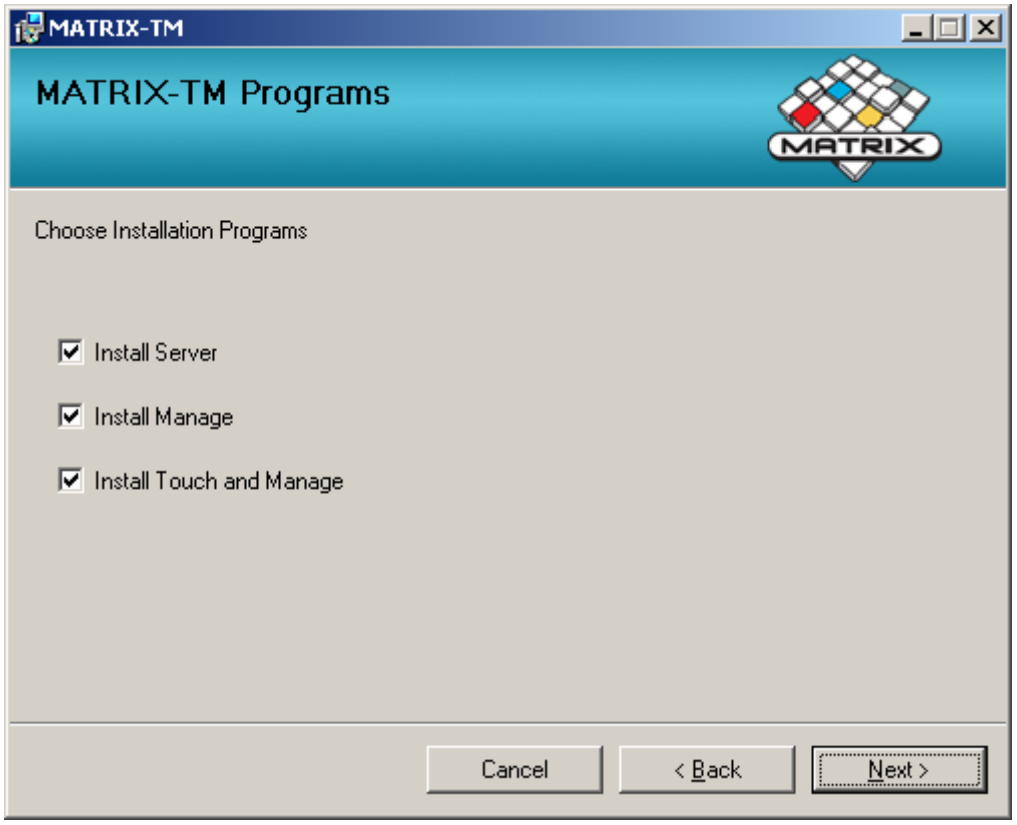
3. Click the <Next> button on the following screen:


MATRIX-TM
Welcome to the MATRIX-TM Setup Wizard
MATRIX
The installer will guide you through the steps required to install MATRIX-TM on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

4. Fill in the path to install the program files, choose "Everyone" to make the software accessible to all users of this computer and click <Next> to continue.


MATRIX-TM
Select Installation Folder
MATRIX
The installer will install MATRIX-TM to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files\MATRIX-TM\
Browse...
Disk Cost...
Install MATRIX-TM for yourself, or for anyone who uses this computer:
Everyone
Just me
Cancel
< Back
Next >

5. Select the program modules you wish to install and click <Next> to continue:



☑ **Install Server:**

A **Server module** for Database.

Choose this option if the current computer contains the Database.

Important! In order to work on a local database, you need to install **MSDE** from as described in Chapter A: Install MSDE (section 2.3).

Note: This setup will install a new DB on your server or update an existing DB, overwriting the demo database.

☑ **Install Manage:**

A **Client module** for Administrative work.

It is recommended to choose this option whether or not the current computer is connected to MATRIX Cabinet.

☑ **Install Touch:**

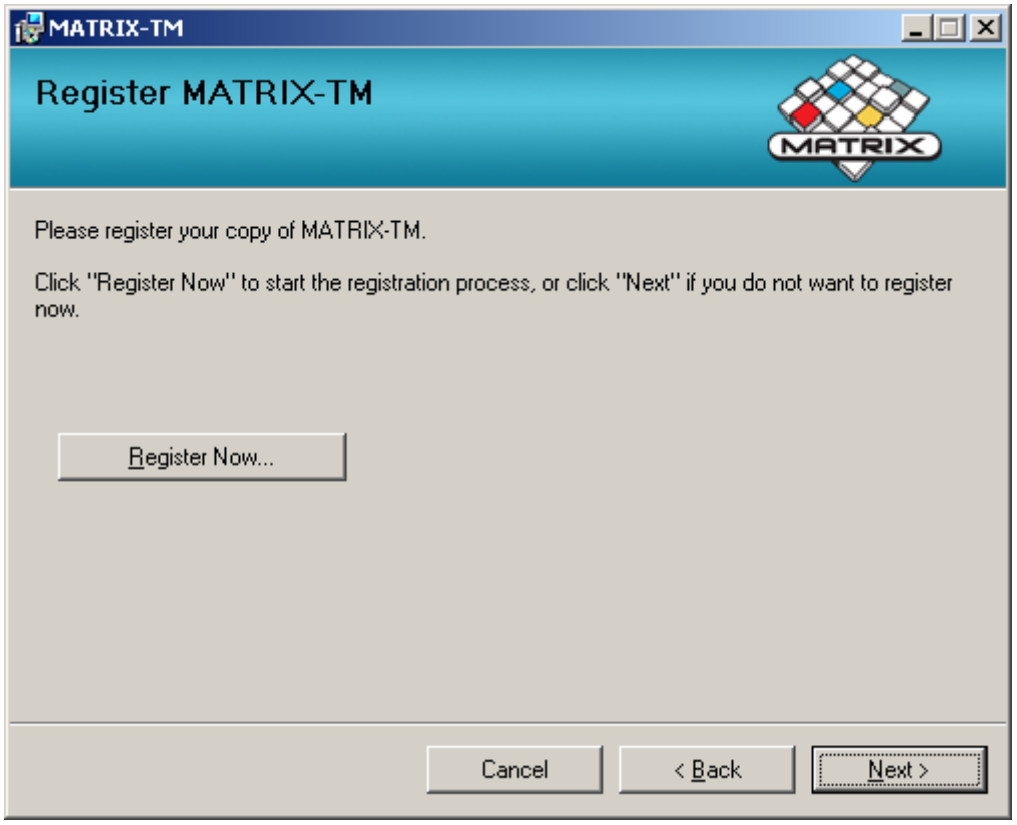
A **Client module** for work with the cabinet.

Choose this option if the current computer is connected to the MATRIX Cabinet.

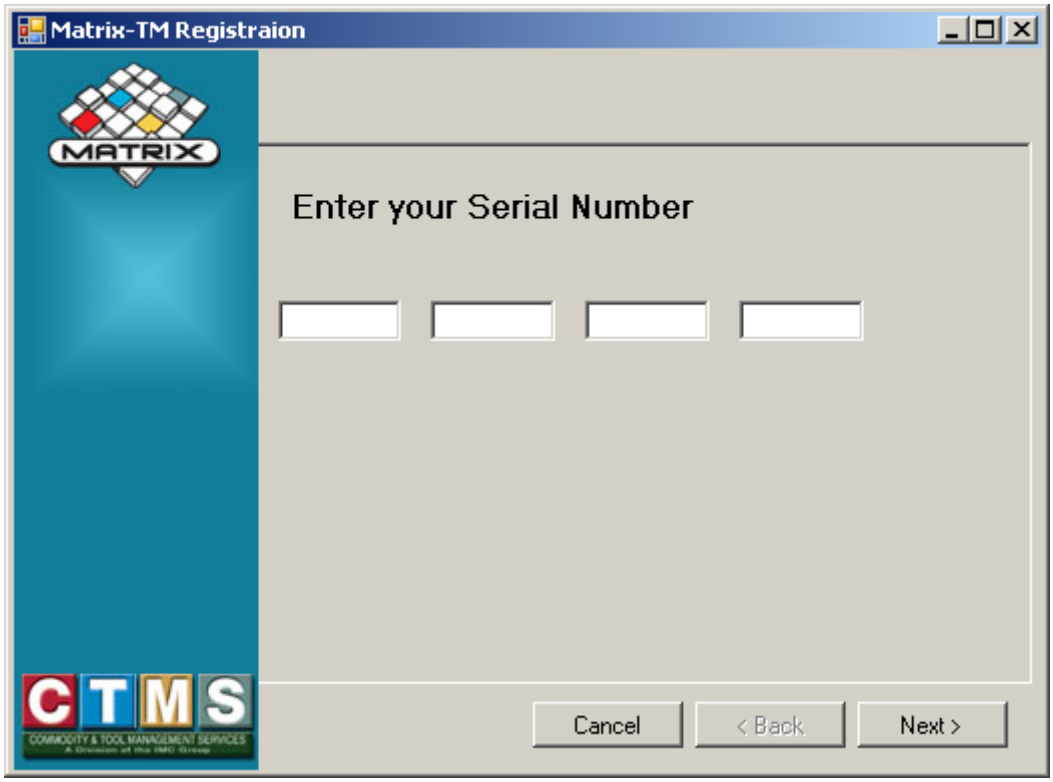
Note: This module can be installed on a computer that is not connected to a MATRIX cabinet, in order to simulate cabinet functionality.

6. Click <Register Now…> to install a registered version using a serial number or;
   Click <Next> to install a Demo version that will expire after 30 days*.
   If you install a Demo version, skip to step 8; otherwise continue to the next step.

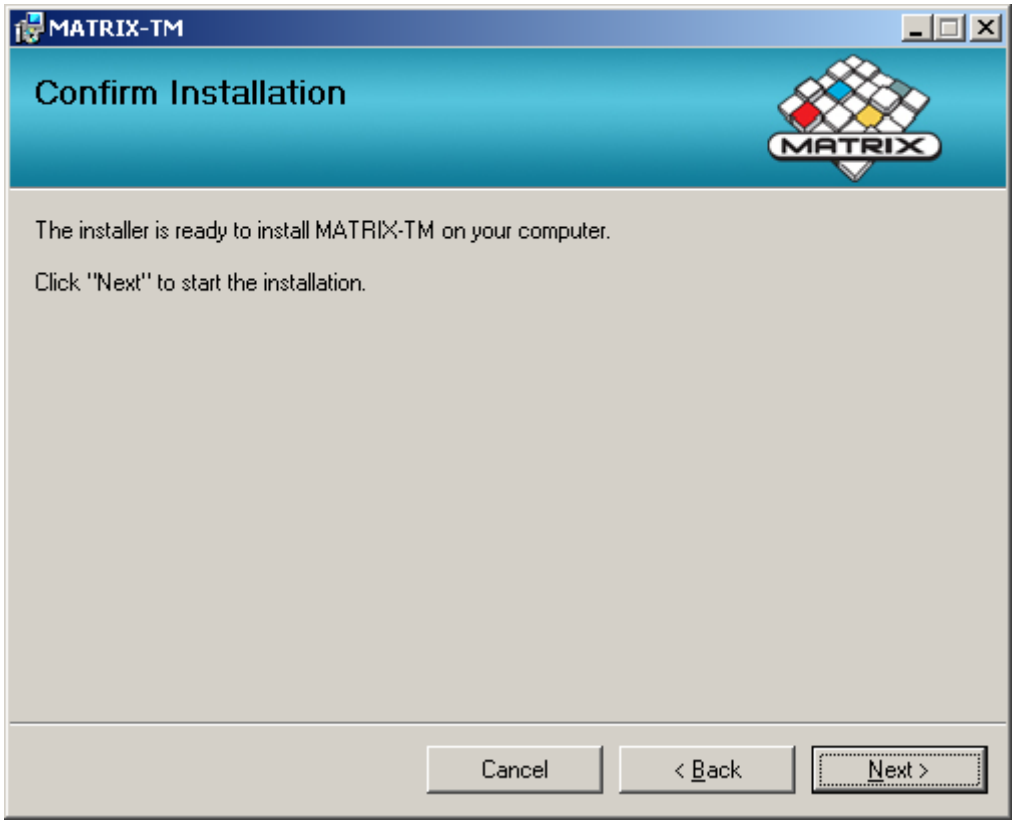
Note: You can also register the program by running the **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → MATRIX-TM Registration** program.


MATRIX-TM
Register MATRIX-TM
MATRIX
Please register your copy of MATRIX-TM.
Click "Register Now" to start the registration process, or click "Next" if you do not want to register now.
Register Now...
Cancel
< Back
Next >

7. Insert the serial number that you received from MATRIX Support and click the <Next> button.



8. Click <Next> to begin installation.


MATRIX-TM
Confirm Installation
The installer is ready to install MATRIX-TM on your computer.
Click "Next" to start the installation.
Cancel
< Back
Next >

If you did not check the option 'Install Server' at the beginning of this section, skip to step 12. Otherwise, continue to the following step.

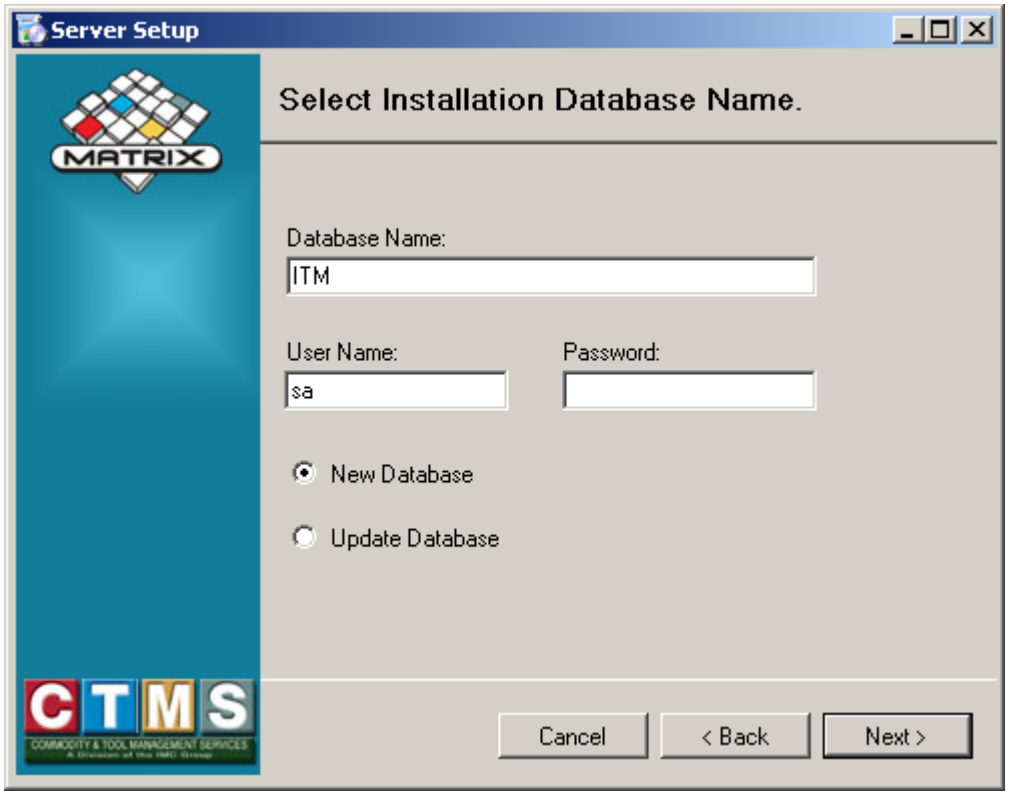
9. By this step you will install a Server with a **New Database** or **Update** of an existing **Database**. SQL Database can be installed locally on the cabinet PC or on a server connected to the network.

Note: The installation of Server requires pre-installation of **MSDE SP4** or **SQL Server**. If this software is missing, run the …\MSDE**install.bat** file as described in Chapter A: Install MSDE (section 2.3).

To install server, click <Next> on the following screen to continue:


Server Setup
Welcome to the Server Setup Wizard.
The installer will guide you though the steps required to install Server Setup on your computer.
WARNING: This computer program is protected by copyrght law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penatlties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

10. Fill-in the data on the following screen and click <Next> to continue:



Database Name: To create a new database, type a new name (recommended to change the default 'ITM' to different name). To update an existing database, type the name of the database to be updated.

User Name: Type user name for the database (default is 'sa').

Password: Type password (default is empty).

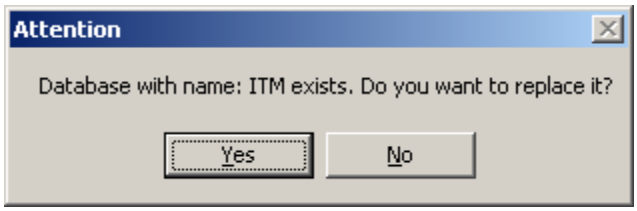
New Database: Choose this option if it is the first installation or if you want to replace the current database with an empty database bearing the same name.

Update Database: Choose this option if it is not the first installation and you want to update the existing database.

The database will be updated with the new features, but your data will be saved.

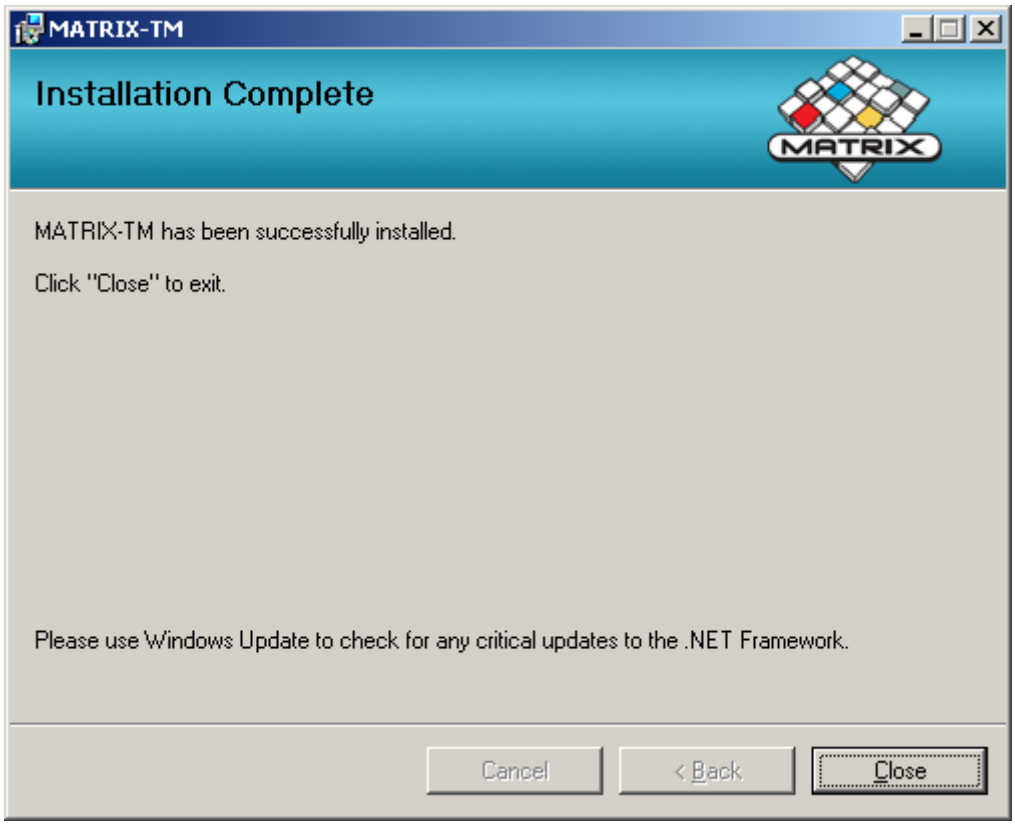
Important! The **ITMDemo** database is always replaced.

11. If you chose to install "New Database" in the previous step, and a database with the same name already exists, you will get the following message:



- Click <Yes> to **overwrite** the existing database with the database from the new installation.
- Click <No> to return to the previous window.

12. Click the <Close> button to finish the installation.



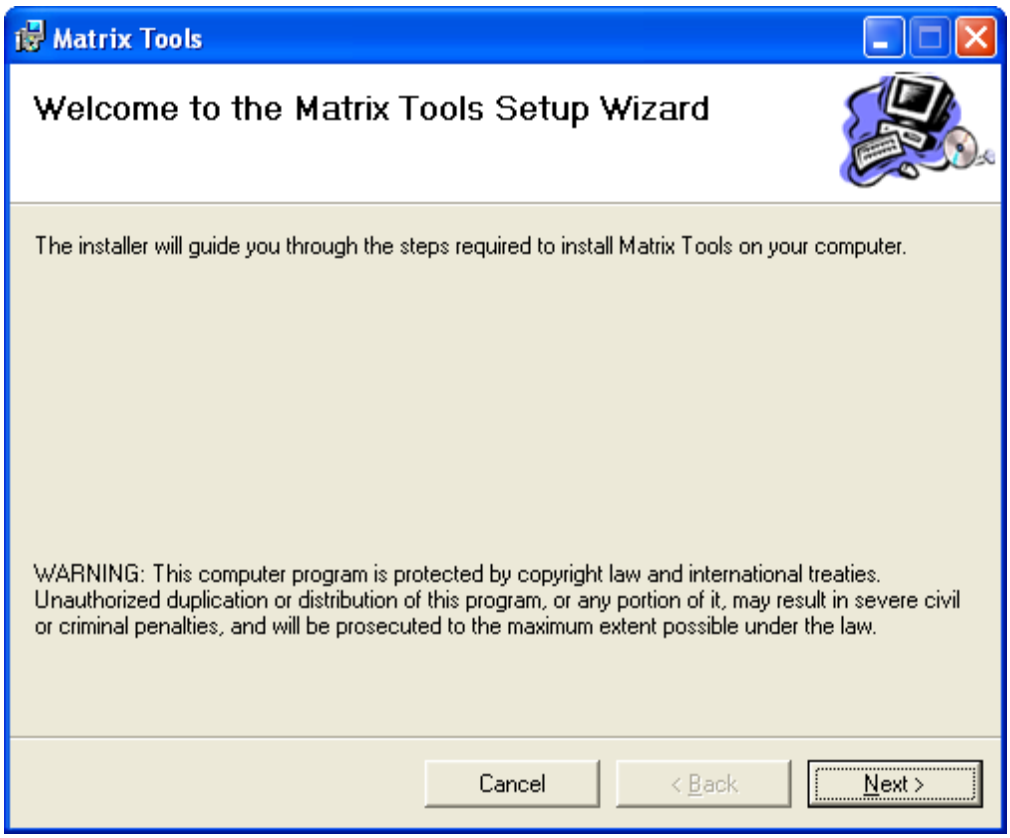
Note: If you included Touch module in the installation, then after the installation is complete, the TOUCH module will be inserted into the **Startup** programs and will run **automatically** when the PC starts.
In order to cancel the automatic run, go to "Start → Programs → Startup" and delete the **TOUCH** shortcut.

2.5 Install MATRIX Tools

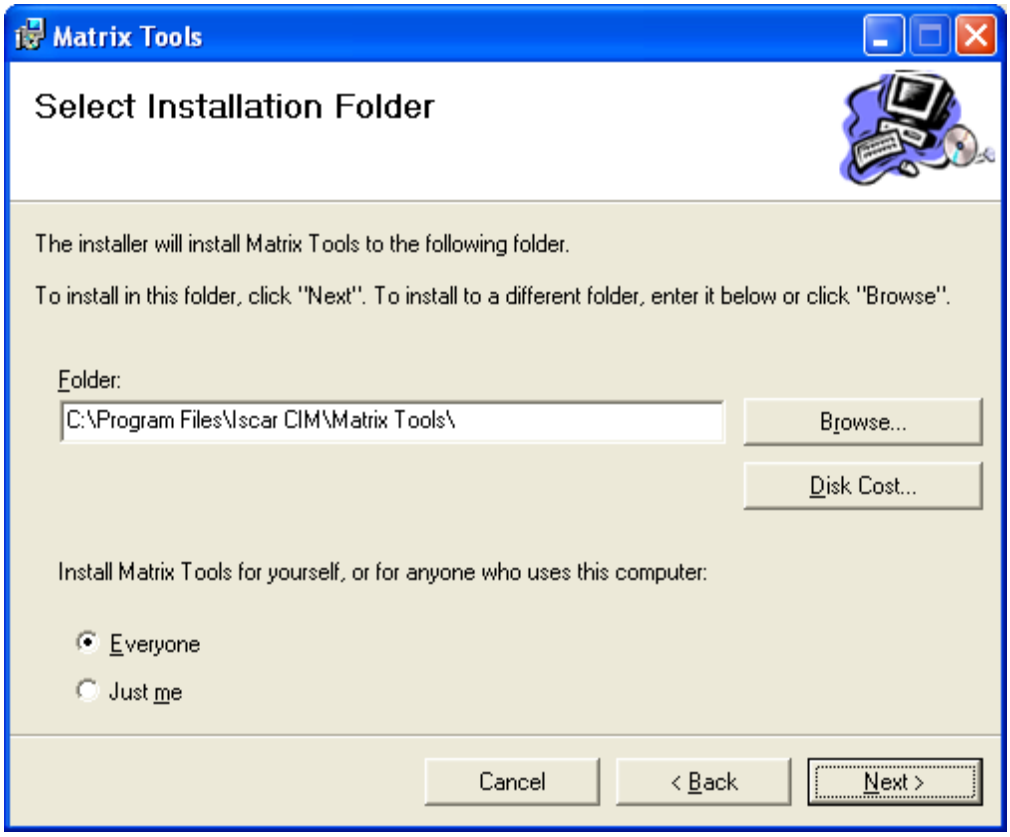
MATRIX Tools will install a simulator which allows MATRIX TOUCH to simulate a MATRIX cabinet. This simulator is used for demonstration purposes where you want to show how the TOUCH works without the need for a cabinet.

Note: If you plan to work with physical cabinet, then you do not need to install this tool and you can skip to the next instruction.

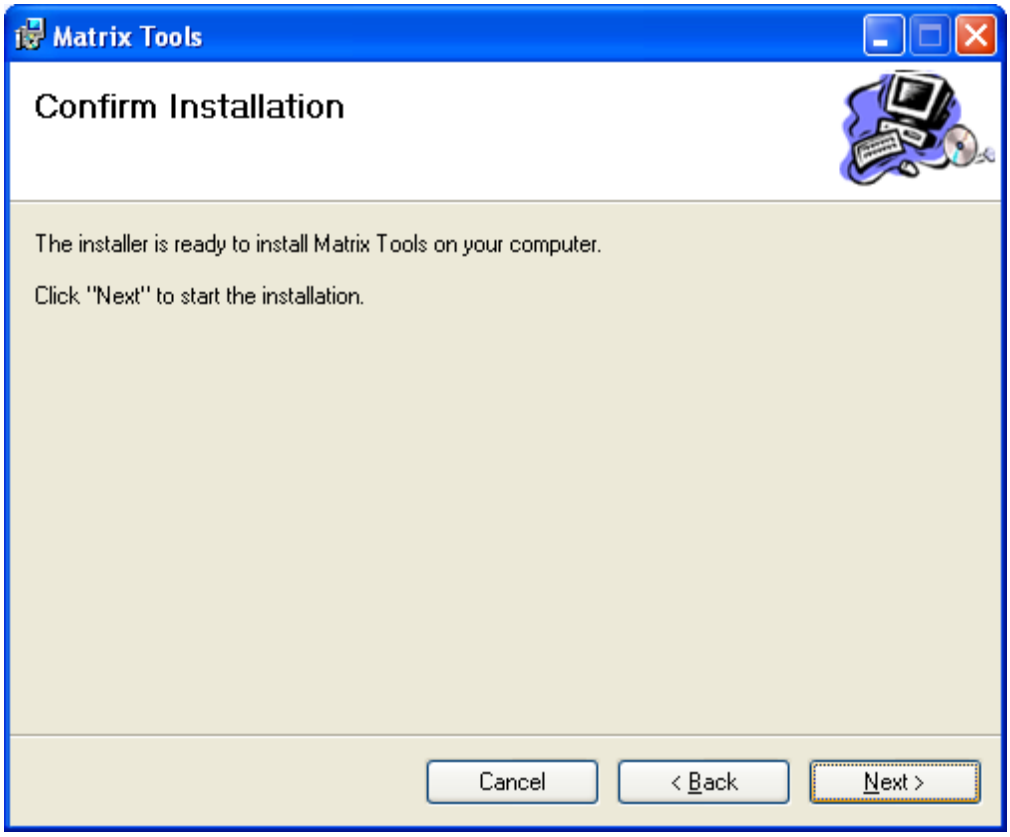
1. Click on the **VmDemoSetup.msi** file in order to check the Hardware.


Matrix Tools
Welcome to the Matrix Tools Setup Wizard
The installer will guide you through the steps required to install Matrix Tools on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

2. Choose Location.


Matrix Tools
Select Installation Folder
The installer will install Matrix Tools to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files\Iscar CIM\Matrix Tools\
Browse...
Disk Cost...
Install Matrix Tools for yourself, or for anyone who uses this computer:
Everyone
Just me
Cancel
< Back
Next >

3. Finally, click <Next> to start the MATRIX Tools Installation.


Matrix Tools
Confirm Installation
The installer is ready to install Matrix Tools on your computer.
Click "Next" to start the installation.
Cancel
< Back
Next >

TECHNICAL NOTES for MATRIX Tools:

- Before you run the application, verify that a serial RS232 cable is connected between your computer and the machine controller. It can also work if your computer has 2 free serial ports. In this case you can connect a serial cable between those ports. You also need to check that you have a .Net framework 2.0 installed on your PC

- From the Start menu run the **"VmDemo"** application.

- On the Setup menu set the Port and Baud rate to work.

- On the Setup menu set the application to simulate (TMS/CTRL).

- If you want to send telegrams between the two applications, run the "VmDemo" again to open another application.

- Set the second application to work with (TMS/CTRL).

- Select Telegram, click the <Send Telegram> button and wait for message response.

- If you get "Timeout" message, check if the correct Port was given and the cable is connected correctly.

- If Error message appears, check the parameters given and the machine situation.

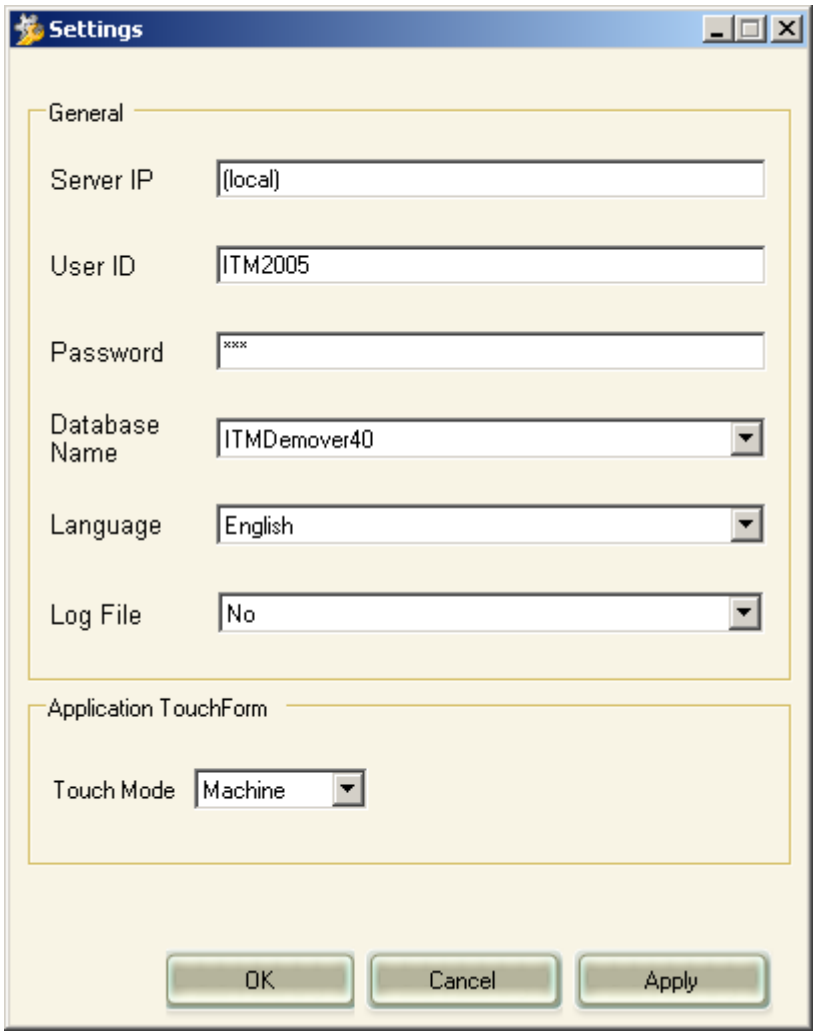
3. Working with MATRIX-TM

The section describes how to connect to the desired database and to start working with the Manage and Touch modules.

3.1 Connect to the Database

In order to start working with MATRIX-TM, you need to set the starting definitions such as database selection, basic language, etc on the "Settings" screen.

1. In order to get to the settings screen, go to:
   Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → MATRIX-TM Settings.
   The following screen will be displayed:



2. Fill-in the data on the "Settings" screen.

Server IP: Server name or IP Address where the database of MATRIX is located. If the database is running on the same computer where MATRIX-TM is installed, then put in this field the name **(local)** or use period symbol (**.**).

User ID: User ID which is used to access the database (**initially will be ITM**)

Password: Password which is used to access the database (**initially will be ITM**)

Database Name: List of available databases for selection according to the chosen Server IP, User ID and Password. If there was any incompatibility with the above fields, then the list will be empty.



Note: It is not recommended to edit changes in the **ITMDemo** database since this database is used for updating databases of previous versions and is replaced when reinstalling Server.

Language: List of all the available languages for the currently selected database. Choose one.

Log File: The system is able to create logs on the selected level. Select a log level.

- No: No error logs will be written.
- Minimum: Logs will be written only on selected events.
- Maximum: Extensive logs will be written.

TOUCH Mode: Select the mode to run TOUCH module.

- Machine: Working with MATRIX cabinet.
- Virtual: Working virtually with no MATRIX cabinet and no simulator.
- Simulator: Working with VMDemo cabinet simulator.



Note: You must check Settings definitions after installation of version upgrades.



Note: If this screen was opened while MANAGE or TOUCH module is open, then you must restart the software modules for the changes to take effect.

3.2 MANAGE module

The Manage module is an administrative tool for initializing the Matrix database with the data.

3.2.1 Login to MANAGE

Steps to login to MANAGE module:

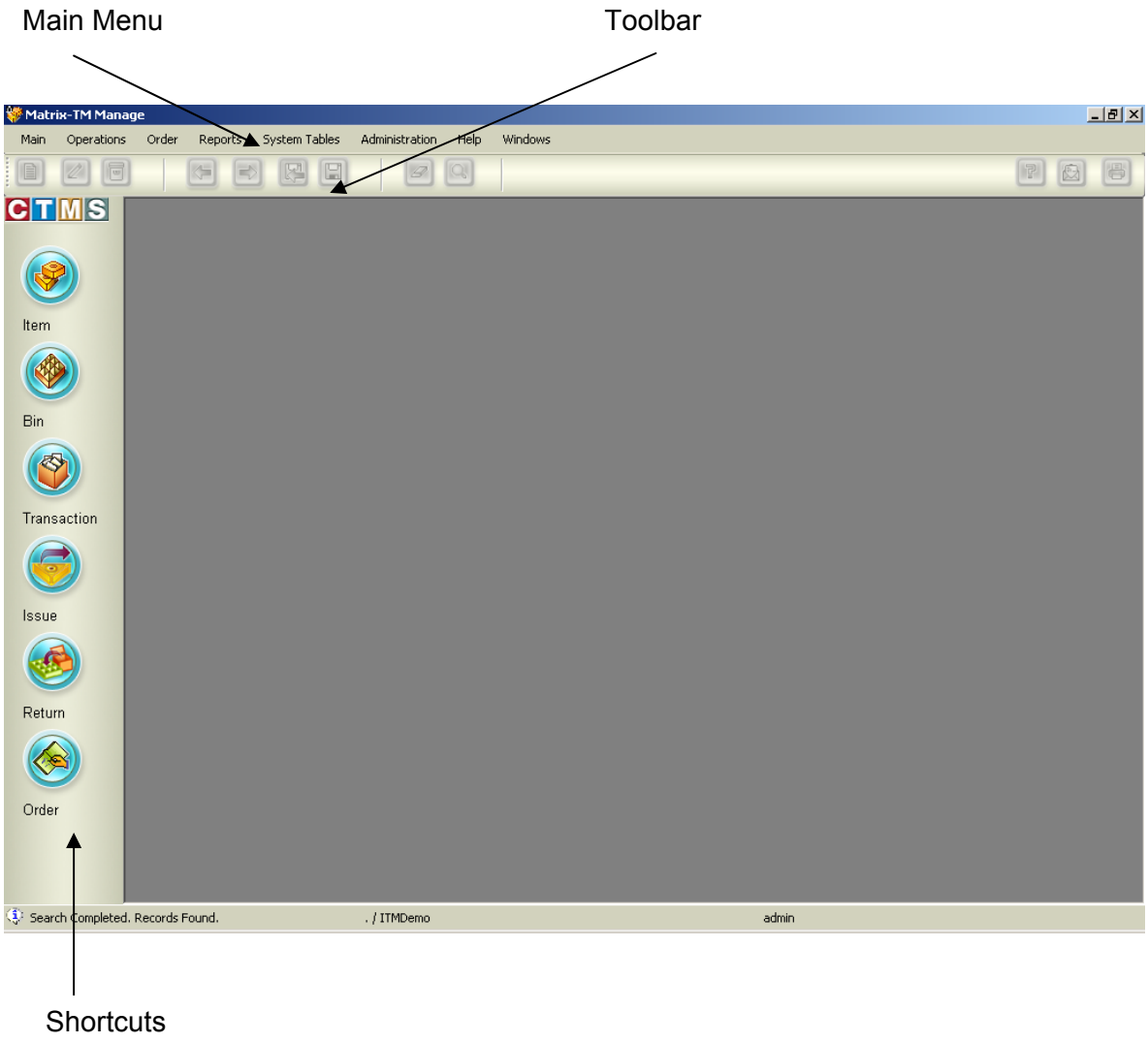
1. Go to the **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Manage**. The "Login" screen will be displayed.
   If there is any problem in running the module, please refer to Chapter A: Connect to the Database (section 3.1).



2. Fill-in the "User Name" and "Password" fields and click the <Login> button.
   Initial User Name = **admin**
   Initial Password = **admin**
   If there is any problem to login, check the user name and password.

Note: After the first login, the password should be changed to ensure data security.

3. "MATRIX-TM Manage" screen will then be displayed.



Note: If a user has limited authorizations, the system will only display the authorized options after login.

After successful login to the Manage module you are ready to start working with the software by adding your data to the database. The recommended steps are described in the following sections.

3.2.2 Adding Users

After installing the software, the database will include one user called 'admin' with administrator authorities. We recommend that you create your own administrator user and login with a new user name.

1. Run **MATRIX-TM MANAGE** and login with 'admin' user.
2. Select "Menu: Administration → Users and Authorizations → Users".
3. Click the  <Add> button on the Menu bar.
4. Fill-in User Name, Password and all the required fields for a new user.

   Save the data by clicking the  <Save> button on the Menu bar.
   For this user, define the User Group with administrative authorities.
   Save the data and logout by closing the application.
   For more details refer to Chapter D: Managing Users and Authorizations (section 18).
5. Run **MATRIX-TM MANAGE** again and login with the **new added user**.
6. Define **new users** and **new groups of users** according to your needs - see Chapter D: Managing Users and Authorizations (section 18). Carefully plan the required user groups. It is a good idea to limit the number of user groups, for easy maintenance.



Note: For advanced use of the software, a user with administrative authorities can add users with the Import module. For more instructions, follow Chapter D: Import Data (section 22).

3.2.3 Adding Suppliers

Run MATRIX-TM MANAGE and follow these steps:

1. Select "Menu: Main → Supplier".
2. Click the  <Add> button on the Menu bar.
3. Fill in Supplier Code, Supplier Name and all the required fields for a new supplier.

   Save the data by clicking the  <Save> button on the Menu bar.
   For more details refer to Chapter B: Base Entities -> Suppliers (section 5.1).

Important! Please note that the list of suppliers already includes a supplier called 'Internal Supplier'. This supplier is automatically added when creating a new database or updating the database to version 4. The system uses this supplier for Internal Orders and prohibits deleting his record. It is also not recommended to edit its data.

Note: For advanced use of the software, a user with administrative authorities can add suppliers with the Import module. For more instructions, follow Chapter D: Import Data (section 22).

3.2.4 Adding Items

Run MATRIX-TM MANAGE and follow these steps:

1. Select "Menu: Main → Item".
2. Click the <Add> button on the Menu bar.
3. Fill Item Code, Item Description, Item Type (durable / expendable / reworkable / kit / key) and all the required fields for a new item.

   Save the data by clicking the <Save> button on the Menu bar.
   For more details refer to Chapter B: Base Entities -> Item (section 5.4).

Note: For advanced use of the software, a user with administrative authorities can add items with the Import module. For more instructions, follow Chapter D: Import Data (section 22).

3.2.5 Adding Cabinets, Drawers and Bins

Run MATRIX-TM MANAGE and follow these steps:

Cabinet and Drawers:

1. Select "Menu: Main → Cabinet".
2. Click the  <Add> button on the Menu bar.
3. Fill Cabinet Code, Cabinet Name, Type, Sequence and all the required fields for a new cabinet.

   Save the data by clicking the  <Save> button on the Menu bar.
4. Go to tab "Cabinet Units" and click the <Build Drawer> button.
   Select from the list the "Drawer Position from Top" (**visual** position of the drawer), "Controller Position" (**physical** controller position of the drawer that can be seen when removing the cabinet side panel) and "Drawer Type" that are compatible to the drawer and its bins configuration, and click the <Build Drawer> button.
   This will add drawers with **bins** and **bin units** to the system. Those bins will be available for editing.

   Save the data by clicking the  <Save> button on the Menu bar.
   If you wish to define virtual bins (for open drawers), bins and bin units will have to be added manually.
   For more details refer to Chapter B: Base Entities -> Cabinet (section 5.2) and Base Entities -> Bin (section 5.3).

   Bins:

   Bins are added **automatically** when adding **Cabinet** and **Drawers**.
   Bins can also be edited or added **manually** as described in the next steps:

   1. Select "Menu: Main → Bin".
   2. To edit an existing bin: Click the  <Search> button on the Menu bar to locate the bin, and click the  <Update> button to open the bin maintenance screen.
   3. To add a new bin manually:
      a. Click the  <Add> button on the Menu bar.

b. Fill-in the **Bin Code*** and **Cabinet Code** of the cabinet where the bin located and save the data by clicking the <Save> button on the Menu bar. The "Bin Maintenance" screen will display the bin' fields to enable the editing.

Note: Chapter B: Bin Location (section 5.3.3) describes the principles used by the software to name bins (in the Bin Code field) which are automatically created. You can use the same principle for bins defined manually.

4. Each bin should be linked to an item stored in it. A bin without an item is defined as an inactive bin.
   Define "Item Code" of the item that will be linked to the bin, fill-in the "Capacity" and save the data.

Important! If you need to add bins **manually** and to access them through TOUCH, you also have to manually create the **bin units**. Without bin units you cannot access those bins in the Touch module. See more details in Chapter B*:* Base Entities -> Bin (section 5.3)

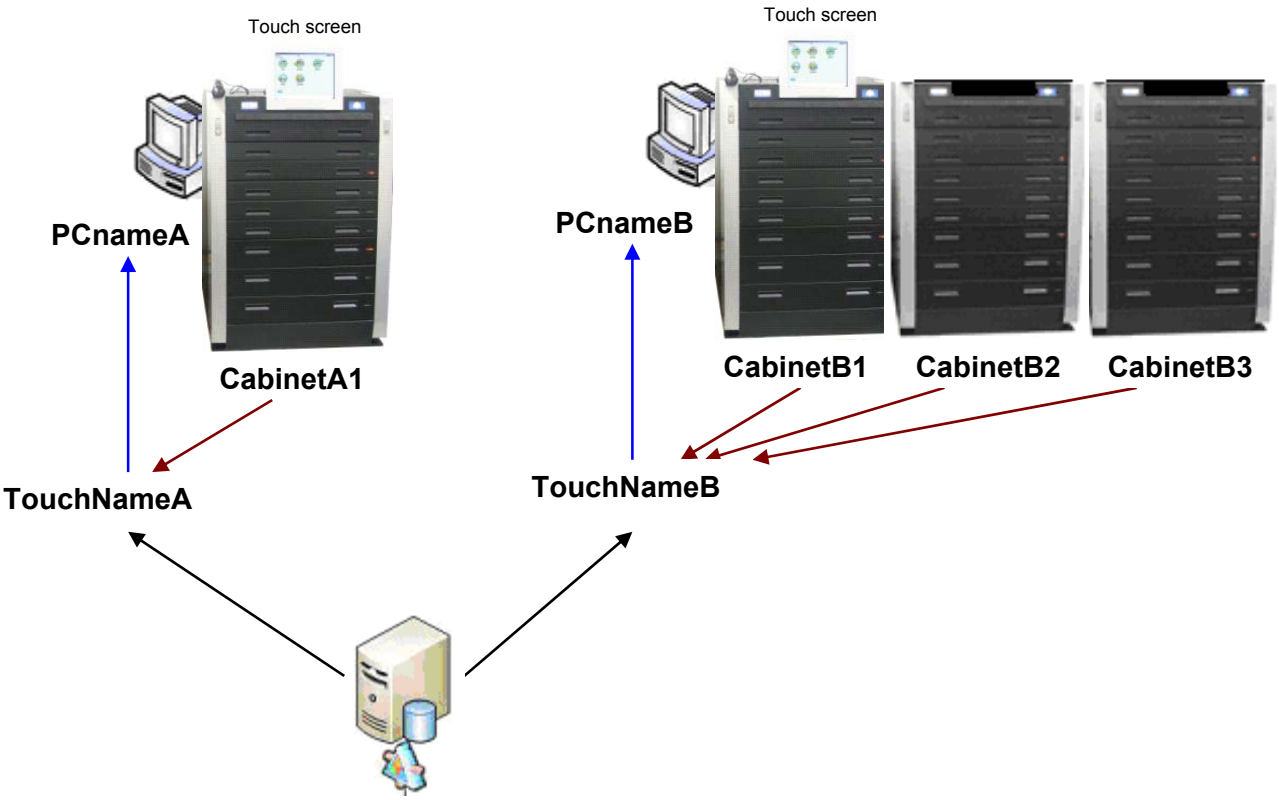
Note: In order to work in a more advanced mode and be able to plan your purchasing, you need to fill in the different parameters of the bin. For more instructions, follow Chapter B*:* Base Entities -> Bin (section 5.3).

3.2.6 Set TOUCH Definitions

In order to work on the TOUCH module with the cabinets defined in the database, the user **must** first create TOUCH definitions in MATRIX-TM MANAGE.
A PC work station can control one Master cabinet and a number of Add-on cabinets. The Master cabinet houses the PC and touch screen. The User must create **TOUCH station definition** in the database by assigning it a **TOUCH Name** and **Computer Name** of the PC located in the Master cabinet.
Once a TOUCH station is defined, the Add-on cabinets must be defined.

For example:

In the diagram below two TOUCH Stations (the first with 1 cabinet, the second with 3 cabinets) are defined in the Server Database.



In order to create the definitions, login to the MANAGE system and follow these instructions:

Set Touch definition for computer:

1. Open "Menu: Administration → Touch Machine → Touch Machine Administration".
2. Click the <Add> button.
   The screen "Touch Maintenance" will be displayed.

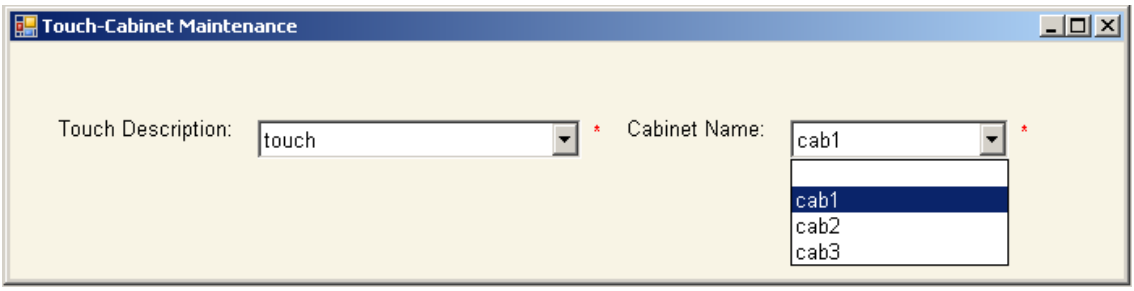


3. Fill the "Touch Description" field with a significant value that describes the name of the touch station.
   Fill the "Computer Name" field with the exact name of the **PC that will run TOUCH**. The value can be taken from:
   Go to **that computer** Properties → follow tab "Computer Name":
   - Take the value from field "Full Computer Name" but do not include the period at the end of the name.
   - Click the <Change…> button → use the value of "Computer Name" field.

   Insert the value in MANAGE and click the <Save> button.

Connect the cabinet/s to previously defined TOUCH Name:

4. Open "Menu: Administration → Touch Machine → Touch-Cabinet"
5. Click the <Add> button.
   The screen "Touch-Cabinet Maintenance" will be displayed.



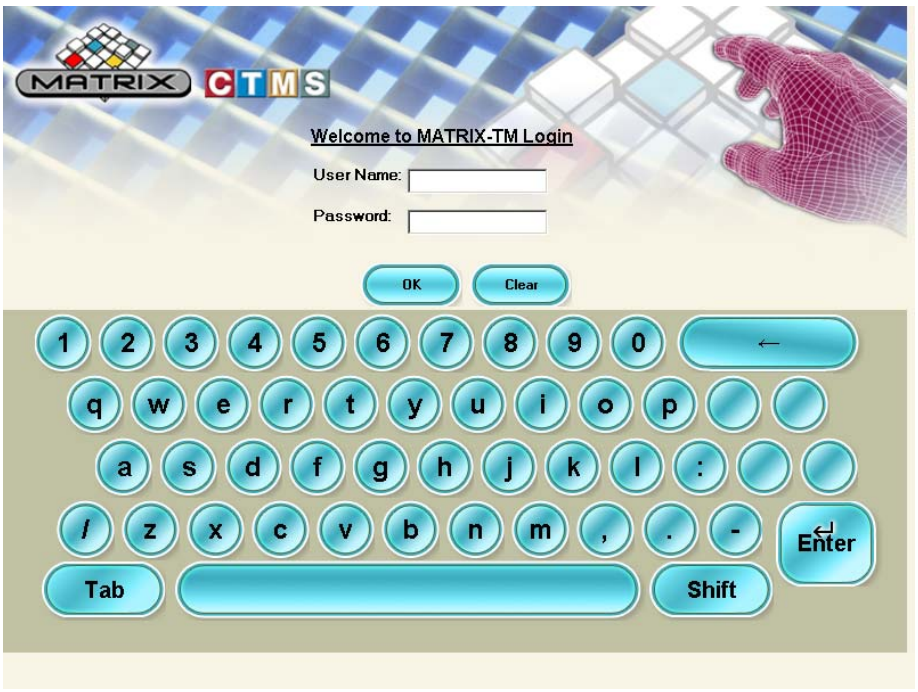
6. For field "Touch Description" select the previously created Touch description.
   For field "Cabinet Name" select the cabinet you want to attach to the Touch.
   Click the <Save> button and close the screen.
   In order to attach more cabinets to the current Touch, repeat steps 4-6.

3.3 TOUCH module

3.3.1 Login to TOUCH

Follow these steps to login to TOUCH module.

1. Go to the **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Touch**.
   If there is a problem in running the module, please refer to Chapter A: Connect to the Database (section 3.1).
   The "Welcome to MATRIX-TM Login" will be displayed.


MATRIX
CTMS
Welcome to MATRIX-TM Login
User Name:
Password:
OK
Clear
1 2 3 4 5 6 7 8 9 0 ←
q w e r t y u i o p
a s d f g h j k l :
/ z x c v b n m , . -
Enter
Tab
Shift

2. Fill-in the "User Name" and "Password" fields and press on the <OK> button.
   Initial User Name = **admin**
   Initial Password = **admin**
   If there is a problem to login, check the user name and password.



TOUCH Operations:

If the login was successful, the "Main Menu" will then be displayed with the following options:

Issue – Issue items.

Receive – Enter orders from supplier into the cabinet (re-stocking).

Return – Return items to the cabinet.

Transactions – Allows an authorized User to correct transactions.

Adjust Item – Adjust stock quantities of items.

Count Bins – Stock counting of the cabinet.

Transfer Order – Transfer of items to another cabinet against an Internal Order.

Receive without Order – Receive an item without having to create a purchase order.

Note: Touch will only display authorized options. If there is authority for one option only, then this option will be automatically selected without displaying the main menu first.

3.3.2 Checking the Connection to Cabinets

After linking **at least one** bin with an item, you can check that your definitions are correct.

1. Run **TOUCH** module and login with the same user name that you have created in the MATRIX-TM MANAGE module.
   You will be presented with main screen and the module options such as Issue, Receive, Return, Transactions, Adjust Item, Count Bins and Transfer Order.
2. Press on the <Count Bins> option. You will be presented with a search screen.
3. Press on the <Search> button to get a list of all the bins.
   If you see bins in the list with the linked item, then it means that you have successfully defined all the data.
   If there are no bins in the list, it means that some of the definitions are missing or wrong. In this case please verify that you have properly completed the Touch definitions as described in Chapter A: Set TOUCH definitions (section 3.2.6).

3.3.3 Issue

A user, who has authority to issue an item, can remove it from stock. Once the user opens the drawer and the bin latch pops-up, the item will be considered as issued.

1. Press on the <Issue> icon.
2. Search for an item by barcode or from the list and select an item.
3. Open the bin following the instructions written at the top of the screen (in RED) and issue the item.
   At this point an 'Issue' transaction with the logged-in user will be created.
   Check this transaction in the MANAGE Module: Operations → Transaction.
4. Close the drawer.

3.3.4 Receive

A user, who has authority to receive an ordered item, can re-stock the item by placing it into the linked bin.

In the MANAGE Module an order must first have been created. It will be in 'Open' status. The order will contain the line items which can be received.

1. Press on the <Receive> icon.
2. Search for an item by barcode or from the list and select the item.
3. Open the bin following the instructions and put the item into the bin.
4. Close the drawer.

   At this point a 'Receive' transaction with the logged-in user name will be created.

3.3.5 Return

A user, who has authority to return an item, can place a used item into a bin. This item can be issued again if it is a **Durable** / **Kit** item or can be sent to regrind if it is a **Reworkable** item (the items of type Durable / Kit can be also sent to regrind if necessary).

In order to be able to return an item, it must be linked to a bin that was defined as 'Used Item' in the MANAGE module. The item to be returned must be of Durable, Kit or Re-workable type.

1. Press on the <Return> icon.
2. Search for an item by barcode or from the list and select the item.
3. Open the bin following the instructions and put the item into the bin.
4. Close the drawer.

   At this point a 'Return' transaction with the logged-in user name will be created.

3.3.6 Adjust an Item

A user, who has authority to adjust items, can adjust the stock quantity of a bin as shown in the system to the actual quantity in the bin.

1. Press on the <Adjust Item> icon.
2. Search for an item by barcode or from the list and select the bin to which the item is linked.

3. Open the bin following the instructions and adjust the quantities on the screen according to the actual quantity in the bin.
4. Close the drawer.
   At this point an 'Adjust' transaction will be created with the logged-in user name.

3.3.7 Count Bins

A user, who has authority to count bins, can reconcile between bin quantities shown in the system and between the actual quantities counted. The count can be done for one bin or for all the bins in one drawer.

1. Press on the <Count Bins> icon.
2. Select from the list a **particular bin** for counting or select **any bin from a particular drawer,** and then answer if you wish to count all the bins from the drawer, or just the selected bin.
3. Open the drawer following the instructions and adjust the quantities on the screen according to actual quantities counted in the bin/s.
4. Press on the <Update> button to save the new quantities.
5. Close the drawer.
   At this point a 'Count' transaction/s will be created with the logged-in user name.



Note: The difference between 'Adjust Item' and 'Count Bin':
Adjust Item – the search and selection is done for **particular item** in any drawer.
Count Bins – the search and selection is done for **particular bin** or all bins in **particular drawer**.

3.3.8 Transfer Orders

A user, who has authority to execute a transfer order, can transfer the ordered items from one cabinet (Transaction -) and then receive them into the cabinet which made the Internal Order. In the MANAGE module an Internal Order with the items for transfer must first have been created in 'Open' status. To execute the transfer order:

1. Press on the <Transfer Order> icon.

2. Search for an item by barcode or from the list and select it.
3. Open the bin following the instructions written at the top of the screen (in RED) and issue the item.

   Once the user opens the drawer and the bin latch pops-up, the item is considered as issued for transfer. At this point a **'Transfer -'** transaction (with a negative Transaction quantity) with the logged-in user will be created. Check this transaction in the MANAGE Module: Operations → Transaction.
4. Close the drawer.
5. Continue with the "Receive" process at the cabinet which created the Internal Order.

3.3.9 Transactions

A user, who has authority to use this option, can correct the quantity of an issue transaction. The option displays all the **Issue** transactions and allows filtering the list by the user who issued the items. To correct an Issue transaction:

1. Press on the <Transactions> icon.
2. Search for a transaction by item barcode or/and by user and select it.
3. Select the bin and set the quantity for return, up to the issued quantity or the bin capacity.
4. Open the bin following the instructions written at the top of the screen (in RED) and return the item.
5. Close the drawer.

   At this point a **reversal 'Issue'** transaction (with negative Transaction quantity) will be created with the date/time and user of the original transaction.

   Check this transaction in the MANAGE Module: Operations → Transaction.

3.3.10 Receive without Order

A user, who has authority to use this option, can receive items to stock according to the orders created in an ERP system. The option displays all the items of the current Touch station that have free storage space. To receive without order to stock:

1. Press on the <Receive without Order> icon.

2. Search for an item and select it.
3. If "References" screen is displayed, insert references to the ERP order and confirm.
4. Select the bin and set the quantity for receive, up to the free storage space and press <Receive> button.
5. Open the bin following the instructions written at the top of the screen (in RED) and receive the item into the bin.
6. Close the drawer.

   At this point a **'Receive'** transaction will be created with the date/time and user.

   You can view this transaction in the MANAGE Module: Operations → Transaction.

3.4 Important Tips

1. **System Options**: Notice that the user can change MATRIX-TM configuration and customize the system for more convenient use.
   In order to learn about the options, read Chapter D: System Options (section 17) and see options table.
2. **System Tables**: Notice that MATRIX-TM has system tables that enable the user to add general data records such as different currencies, cabinet types, etc. It is recommended to learn about these tables for more convenient use of the system.
   In order to learn more about these options, read Chapter D: System Tables (section 16).
3. **Help and Technical Support**: Notice that MATRIX-TM MANAGE module has an option to get help and support on line, directly from its screen, such as:
   a. Open help on a particular topic.
   b. Send email for support (with logs included).
   c. To send the data which is connected to a support issue, you can create an email with a report attached.

   In order to learn more about these options, read Chapter B: Help and Technical Support (section 10).

CHAPTER B: MATRIX-TM MANAGE MODULE

MANAGE Module Preview

MANAGE is installed on a PC work station. Manage lets you define and maintain all the important entities in MATRIX-TM e.g. Item, Bin, Cabinet.

Manage is a fully featured stock management application, which can be used to manage stock in an ATD or manual warehouse (“Cabinet”).

MATRIX-TM customers are located worldwide, so the system supports multiple languages by using language and header tables, which contain the system’s text translated to different languages.

The system enables the user to move between different languages by just choosing the language from a menu.

4. MANAGE Interface and Initial Operations

4.1 Login to the MANAGE System

1. Operate the Login Screen.



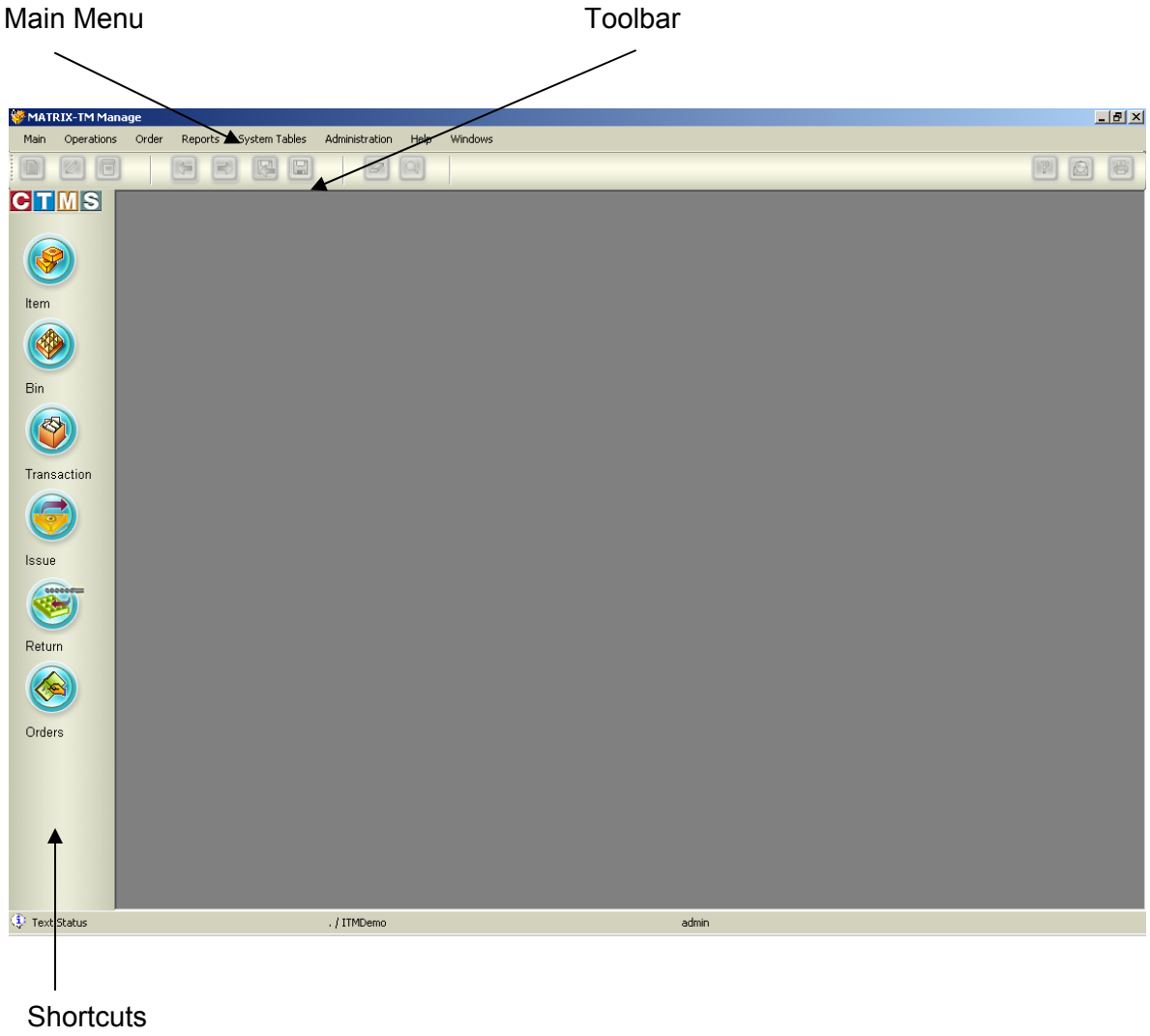
2. Enter the "User Name" and "Password".
3. Click the <Login> button (or hit the <Enter> key).
4. If the entered User Name and Password are valid, the system's opening screen (its "Desktop") will appear.

4.2 The System's Desktop

The system's desktop is its main screen, and is first displayed after login is completed. It functions as the frame for all the system's screens.

The desktop includes the system's menu, toolbar and shortcuts.

Following is the Desktop Description:



Main Menu

The system's menu includes the following options:

1. **Main**
   - Bin
   - Item
   - Cabinet
   - Supplier
2. **Operations** - contains stock management related modules:
   - Issue
   - Return
   - Stock Count
   - Stock Transfer
   - Transaction
3. **Order**
   - Order
     - Orders – standard order maintenance
     - Rework Orders
     - Internal Orders
     - Show All Orders
   - Transfer Orders
   - Receive Order
   - Receive without Order
   - Invoices
   - Return to Supplier
4. **Reports**
   - Transactions
     - Advanced Transactions Report
     - Issue / Return Comparison
   - Stock Reports
     - Advanced Stock Report
     - Dead Items Report

- Dead Bins Report
- Stock by Bin
- Stock by Cabinet
- Stock by Item
- Min Comparison
- Max Comparison

- Usage Report
  - Basic Usage Report
  - Advanced Usage Report
- Stock Shortage
  - Stock Shortage
  - Advanced Stock Shortage
  - Early Warning Report
- Stock Valuation Report
  - Valuation By Bin Report
  - Valuation By Item Report
  - Valuation By Cabinet Report
- Orders Report
  - Basic Orders Report
  - Advanced Orders Report
- Bin Units Report
- Additional Fields Report
  - Additional Fields Report
  - Additional Fields – Advanced Items Report
  - Additional Fields – Advanced Bins Report
  - Additional Fields – Advanced Orders Report
- Items
  - Item-Supplier Report
  - Kits Report
  - Item Catalog Pictures
  - Items-Cost Centers

5. **System Tables** – contain the system's support tables
   - Currency

- Item Category
- Item Group
- Item Authorizations Group
- Shipping Method
- Site
- Budget Group
- Unit of Measure

6. **Administration** – contain system definitions:
   - Users and Authorizations
     - Users
     - User Groups
     - Authorization Manager
     - User Cost Centers
   - Interfaces
     - Interfaces
     - Interface Scheduler
     - Interface Report
   - Touch Machine
     - Touch Machine Administration
     - Touch-Cabinet
     - Cabinet Log
     - Drawer Type
   - Cost Center Header
   - Cost Center Details
   - Defaults List
   - Texts
   - Additional Fields
   - System Options
   - Manual Process
   - Import Data
   - Scheduling Reports
   - Settings

7. **Help**
    - About
    - Send Email to Support
    - Help
8. **Windows**
    - Close all Windows
    - Cascading Windows

Toolbar

1.  Add

   When a search or details screen is displayed, by clicking the <Add> button, an update page will be displayed in an insert mode, enabling the user to insert a new record by filling the necessary fields and saving them.

2.  Update

   When a search or details page is displayed and a certain record is selected, by clicking the <Update> button, an update page will be displayed enabling the user to update the selected record.

3.  Delete

   When a search or details screen is displayed and a certain record is selected, by clicking the <Delete> button, the selected record will be deleted.

4.  Refresh

   By clicking the <Refresh> button the current record's data will be refreshed (updated).

5.  Back

   By clicking the <Back> button, the previous record from a search list will be opened for maintenance.

6.  Next

   By clicking the <Next> button, the next record from a search list will be opened for maintenance.

7.  Save & Close

   On the maintenance screen: By clicking the <Save & Close> button; any modification made to the selected record will be updated in the database and the current window will be closed.

   On the search screen: By clicking the <Save & Close> button; the definitions of search screen will be saved and the window will be closed. Next time you open the same search screen it will load according to the saved definitions. The following

definitions can be saved: Sort of screen, Column position, Column size, Window size and Search parameters.

8.  Save

   This button has the same functionality as the <Save & Close> button, but the current window will not be closed.

9.  Clear

   By clicking the <Clear> button, the content of the displayed fields (in a search, details or queries screen) will be cleared.

10.  Search

    By clicking the <Search> button, a list of records that meet the criteria defined in the top section of the page will be displayed on screen.

11.  Help

    Displays a help screen regarding the current option in use.

12.  E-Mail

    Creates an email for the technical support by attaching a report as a file.

13.  Print

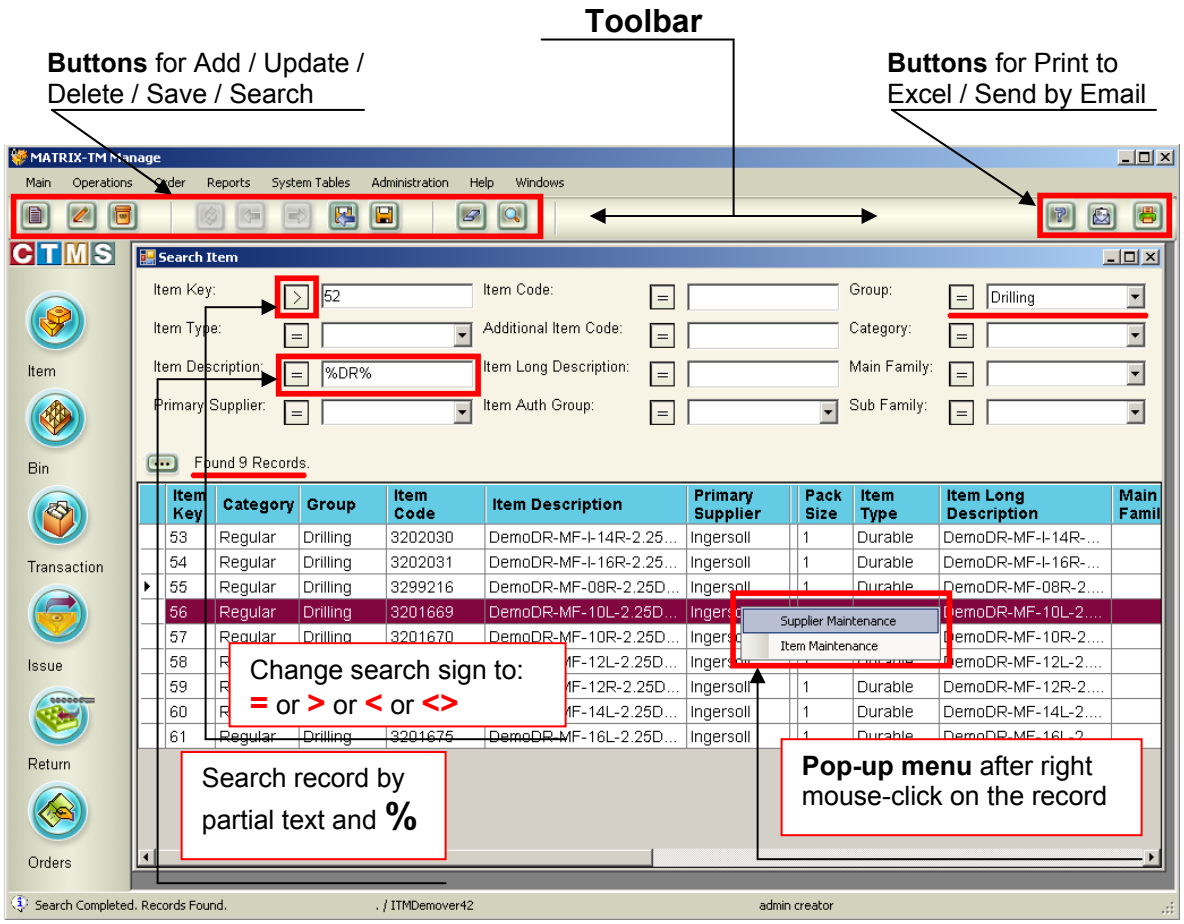
    Exports query results or basic reports to an Excel file.

4.3 Operational Principles

The MANAGE module uses a generic search screen as a **starting point** for working with the records. In order to update any record in the database, first you need to open its generic search screen from the menu and then select it for update.

The top section of the search screen contains search parameters in order to filter the records which are shown in the bottom section in list format. The functions available related to data in the search screens include View / Add / Update / Delete / Search / etc…

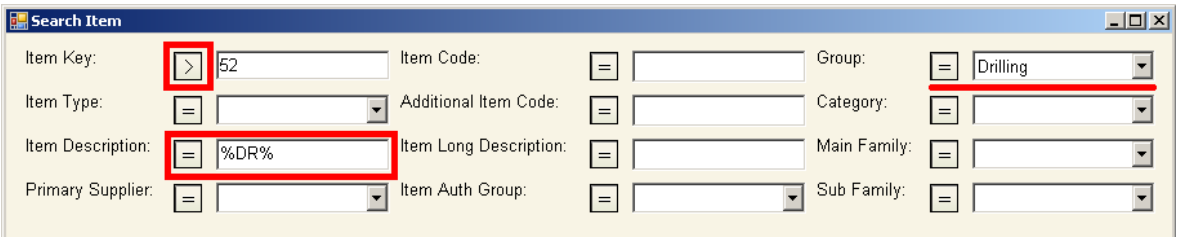
Some generic screens have differences in their available options, but most of the modules in the system work by the same principles; therefore they are described here fully only once.



Search for a record

To follow the example above, open "Menu: Main → Item" to get the 'Search Item' screen. This search screen was set to filter all the items from the **'Drilling'** group which have the **'DR'** string in their description and with item key above **52**.

Search parameter types:



The search parameter types are:

- **Numerical** – Use numerical value only (in the example - 'Item Key' field).
- **Textual** – Use any alphanumeric value which fits exactly to the value in the record. It you wish to search by partial string, you have to use **%** sign (in the example – 'Item Description' field). See also important note below!
- **List** – Select the value from list displayed when clicking on the arrow next to the field (in the example – 'Group' field).
- **Date** – Select the date from the calendar displayed when clicking on the field.

To search for a record:

1. Open the relevant search screen and set the search parameter values.
2. If needed, change the sign on the buttons located on the left side of each search parameter by clicking on the button. Each click will change its sign to either > or < or = or <> in order to enable searching records by "more", "less", "equal" or "not equal" to the search parameter value (in the example – 'Item Key' is more than 52).
3. Click the <Search> button on the toolbar.

The grid in the lower part of the screen will display the records that match the defined criteria. The number of found records will be displayed above the grid (in the example – Found 9 Records).

4. If the desired record was found, mark it in the list and select the desired operation on the toolbar. Otherwise, make another search.

Important! In all search fields where the user manually types the value to be searched, you can type a partial value and then use the '**%**' sign. It will display all the records that include the partial value. For example, if you are searching for all the Bins that their Bin Code starts with "Demo1-01", type "Demo1-01%" and search.

Note: For performance reasons the number of records which are displayed in the search screen is limited. This limitation can be changed by the administrator in **System Option 205** - Number of Rows to Display. To change the value, open "Menu: Administration → System Options" → parameter 205 (normally set to 2000).

Change search view

A User can now change the view of generic search screens. These changes can be saved.

Available operations:

- **Sort the list**: Click the column header in order to sort the list in ascending or descending order.
- **Resize window**: Click the search screen corner and drag the mouse to reduce / enlarge the window size.
- **Resize columns**: Click the divider between columns and drag mouse left or right in order to resize the width of columns.
- **Re-order columns**: Click a column header and drag it to a different position.
- **Search parameters**: Set search parameters as described in the previous section.

All the above operations can be saved.

To save the changed view:

1. Open relevant search screen and make the required changes to the view.
2. Click the  <Save> button on the toolbar to save the changes or; Click the  <Save & Close> button on the toolbar to save the changes and close the screen.

Add a record

Users can add a record to the generic search screens, like the list of Items, Cabinets etc...

To add a record:

1. Open the relevant search screen.
2. Click the  <Add> button on the toolbar.
   The maintenance screen will be displayed in an Insert mode.
3. Input values for the fields and click  <Save> button to save the record.
   Once the record is saved, it will be added to the search screen and may then be updated or deleted.



Note: The fields that appear with a red asterisk **(*)** are mandatory and must be filled in before saving the record.

Update record

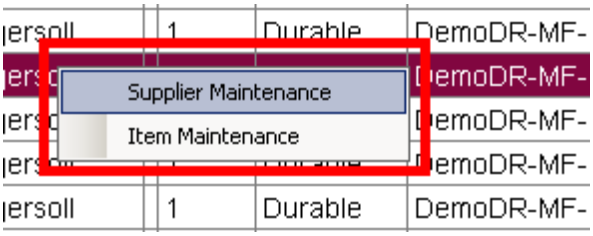
User can update an existing record in the generic search screen, like the list of Items, Cabinets, Suppliers, etc…

Options to open record:

There are a few ways to open a record from the search screen:

- Double click the record or;
- Click the <Update> button or;
- Click the right mouse-button in order to get **Pop-up menu** (not available for all search screens). The Pop-up menu will usually display an option to open the maintenance screen of the selected record or of the records which are related to the selected record.

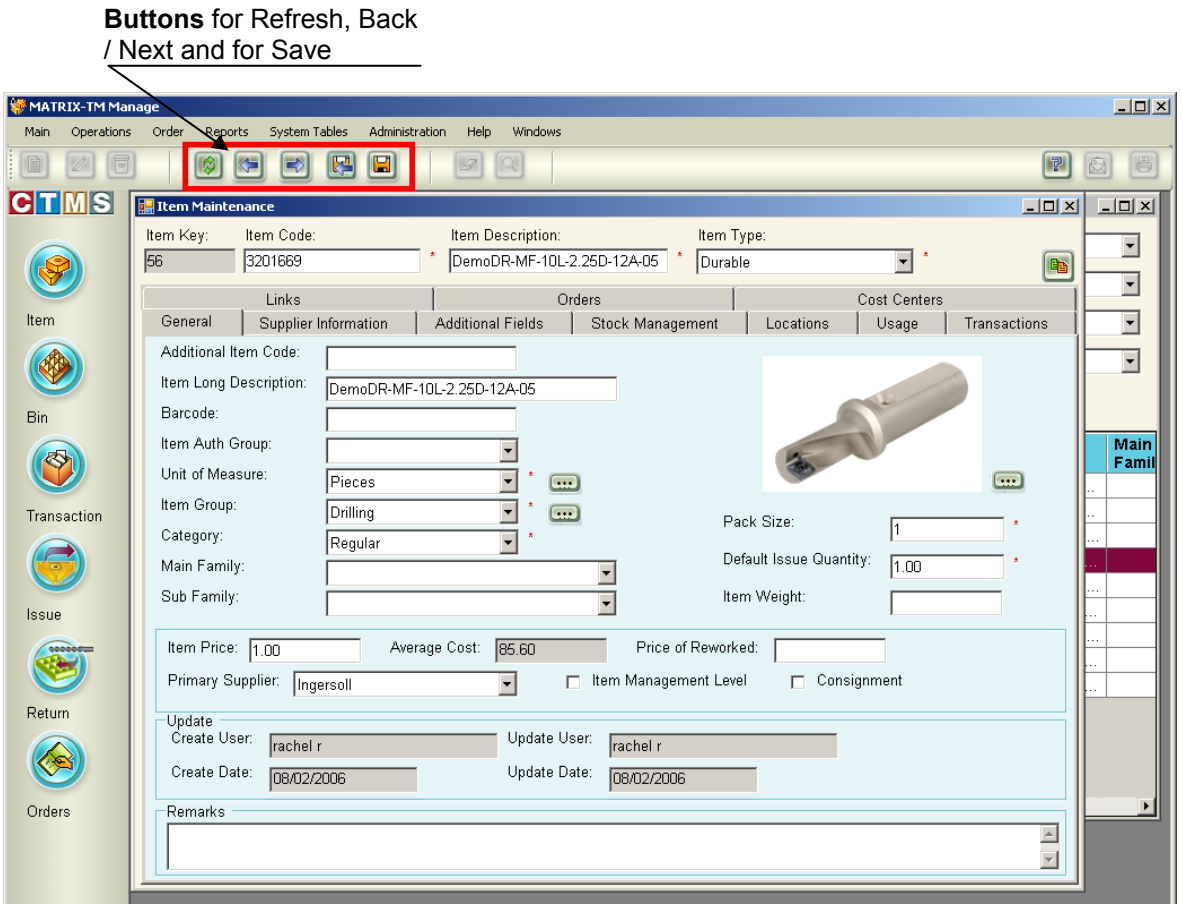
  In the example above, the Pop-up menu on the 'Search Item' screen enables the user to open the selected item maintenance screen or the maintenance screen of the item supplier.



To update a record:

1. Open the relevant search screen.
2. Search for the relevant record, mark it and then open the record using one of the options described above.

   Following the example above and opening the 'Item Maintenance' screen of the selected record, the following screen will be displayed:



4. Make the required changes on the maintenance screen of the record and click  <Save> button to save them.
5. Whilst your update screen is open, you can switch to the next or previous record from the list by clicking the  <Back> or  <Next> button on the toolbar.

Delete a record

User can delete records in a generic search screen, like from the list of Items, Suppliers etc…

To delete a record:

1. Open the relevant search screen.
2. Search for the relevant record, mark it in the grid and click the  <Delete> button on the toolbar.
   The selected record will be deleted from the database. If for any reason a record cannot be deleted, a system message explaining the reason will appear.

Shortcut keys

MANAGE module enables working with keyboard shortcut keys on the next screens:

Generic search screens:

CTRL + N	→ Create a new record
CTRL + O	→ Open the selected record for update
CTRL + Delete	→ Delete the selected record
CTRL + F5	→ Clear the current search parameters
F5	→ Refresh the search list
CTRL + P	→ Export the list to excel for print

Maintenance screens:

Alt + Up arrow	→ Open the maintenance of previous record
Alt + Down arrow	→ Open the maintenance of next record
CTRL + S	→ Save the current record
CTRL + Enter	→ Save and close current record

4.4 Definition of Common Terms

- **Desktop**

  The system's main screen frame, which contains the fixed features in the system: menus, tools, command buttons and shortcuts to commonly used applications.

- **Parameter**

  Field's in the search screen, which can be used to sort or filter records.

- **Command Buttons / Buttons**

  Buttons such as <Search>, <Save> and <Clear> as well as operation buttons (Update/Add/Delete) and shortcut buttons, which appear in the system's menus and cause certain actions.

- **Record**

  Collection of fields, usually a line in the database, which describes a specific entity (for example, a cabinet, a bin, a supplier, a transaction etc…). The records appear as rows in the grid in the lower section of the search screen, or as a collection of fields in the Update screen.

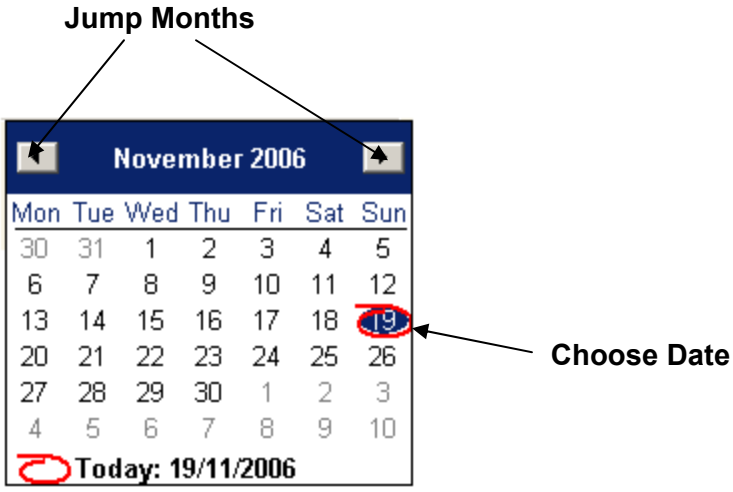
- **Search Results**

  Collection of records, which appear in the lower part of the search screen after a search is completed.

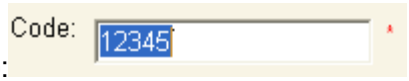
- **Calendar**



Clicking on the  button will display the following calendar screen, which enables selecting the date:



- **Mandatory fields:**

  Mandatory fields are marked with a red asterisk (*): 

and must be filled in for the record to be saved to the database.

5. Base Entities

The base entities are:

1 Supplier

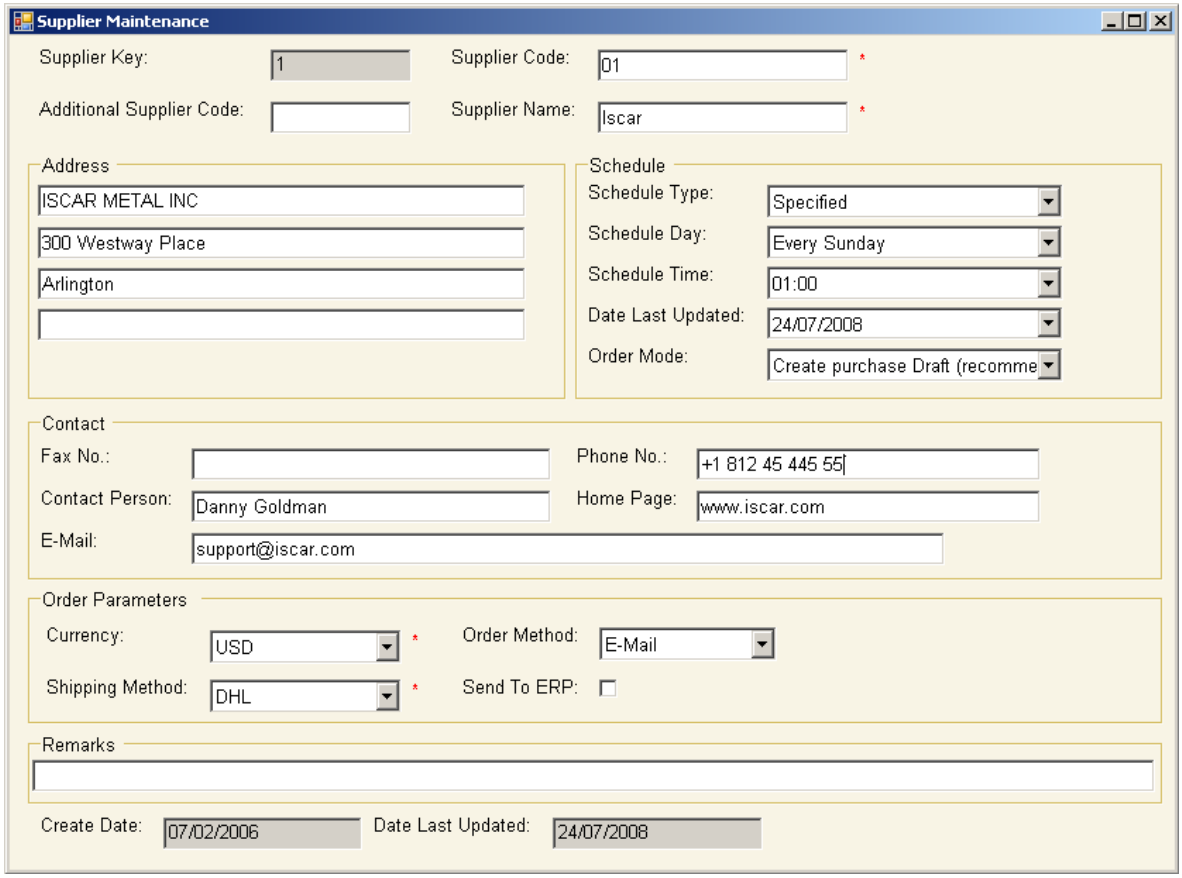
2 Cabinet

3 Bin

4 Item

5.1 Supplier

Following is the "Supplier Maintenance" screen, in which the company's suppliers can be managed.



Fields Description:

The following details should be entered for each supplier:

Supplier Code:	Unique supplier code.
Additional Supplier Code:	Additional supplier code.
Supplier Name:	Unique supplier name.
Address:	Supplier address.
Schedule Type:	The scheduler for creating automatic orders per supplier. Specified – Personal schedule. Default Schedule – General schedule that is defined in the System options 807 & 808. Do not run – The system will not create orders for this supplier.
Schedule Day:	Day for running automatic orders.
Schedule Time:	Time for running automatic orders.
Date Last Updated:	Updated by the system with the date when the last check for automatic orders was done. The orders will not run at the same day defined here, therefore keep this field initially empty or with a past date.
Order Mode:	Mode per supplier for creating automatic orders (No run / Draft / Open / Send to supplier).
Fax No, Phone No:	Supplier contact details.
E-Mail:	Single supplier email or multiple emails separated by sign **(,)** which are used for receiving automatic and non-automatic purchase orders from the system.
Home Page:	Supplier home page.
Contact Person:	Supplier contact person that will be copied automatically to purchase orders.
Currency:	The currency that supplier uses.
Shipping Method:	The shipping method that supplier uses.
Order Method:	Select 'Email' to send the automatic purchase orders to the current supplier by email or select 'Print' to print the orders.
Send to ERP:	Sign the box if the purchase orders of the current suppliers should be sent, by default, to ERP.
Remarks:	General remarks.



Note: The details which are maintained on the supplier level will be used in the **Items** and **Purchase orders**, therefore it is recommended to maintain as much detail as possible in this screen. Further explanations regarding those issues can be found in Chapter B: Items (section 5.4) and Chapter B: Orders (section 7).

Adding a supplier

1. Select "Menu: Main → Supplier" in the system's main menu.
2. Click the  <Add> button on the Menu bar.
3. Enter the mandatory and regular fields according to description above.
4. Click the  <Save> button on the Menu bar.

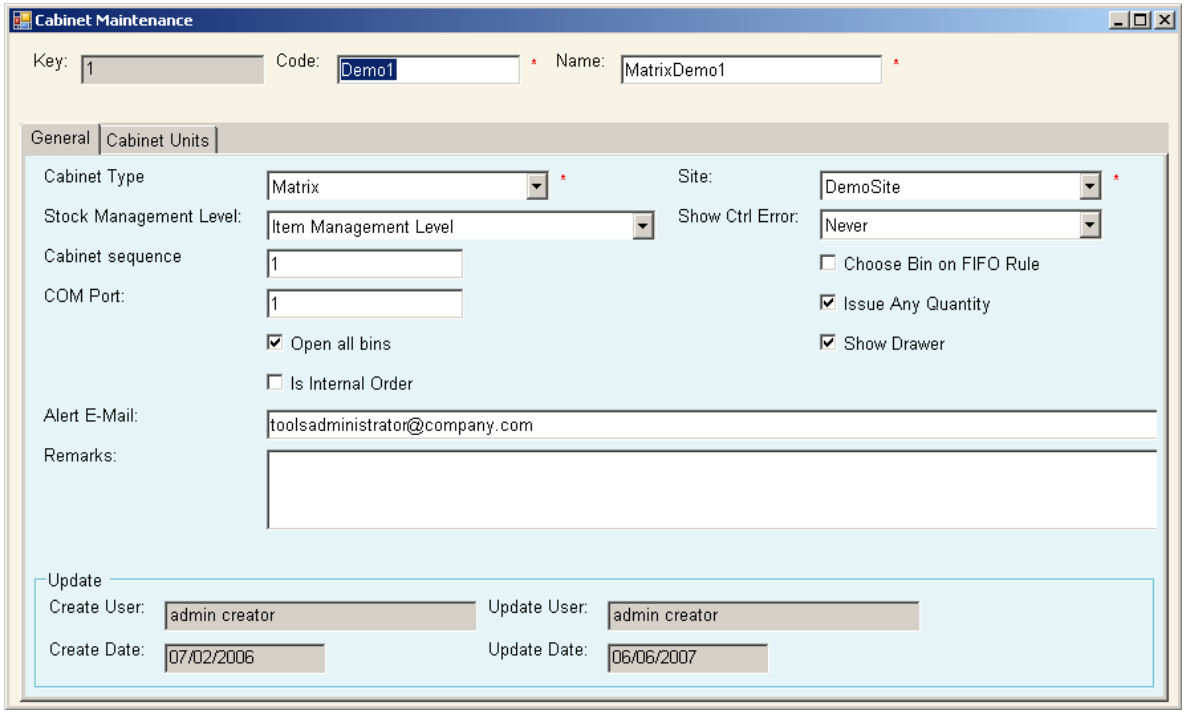


Important! Please note that the view of suppliers already includes a supplier called 'Internal Supplier'. This supplier is automatically added when creating a new database or updating the database to version 4. The system uses this supplier for Internal Orders and prohibits deleting his record. It is also not recommended to edit its data.

5.2 Cabinet

As previously mentioned, the main component in the system is the MATRIX cabinet, which is divided into drawers, which are, themselves, divided into bins of different sizes. In case there are no bins in the drawer, the entire drawer functions as 1 bin.

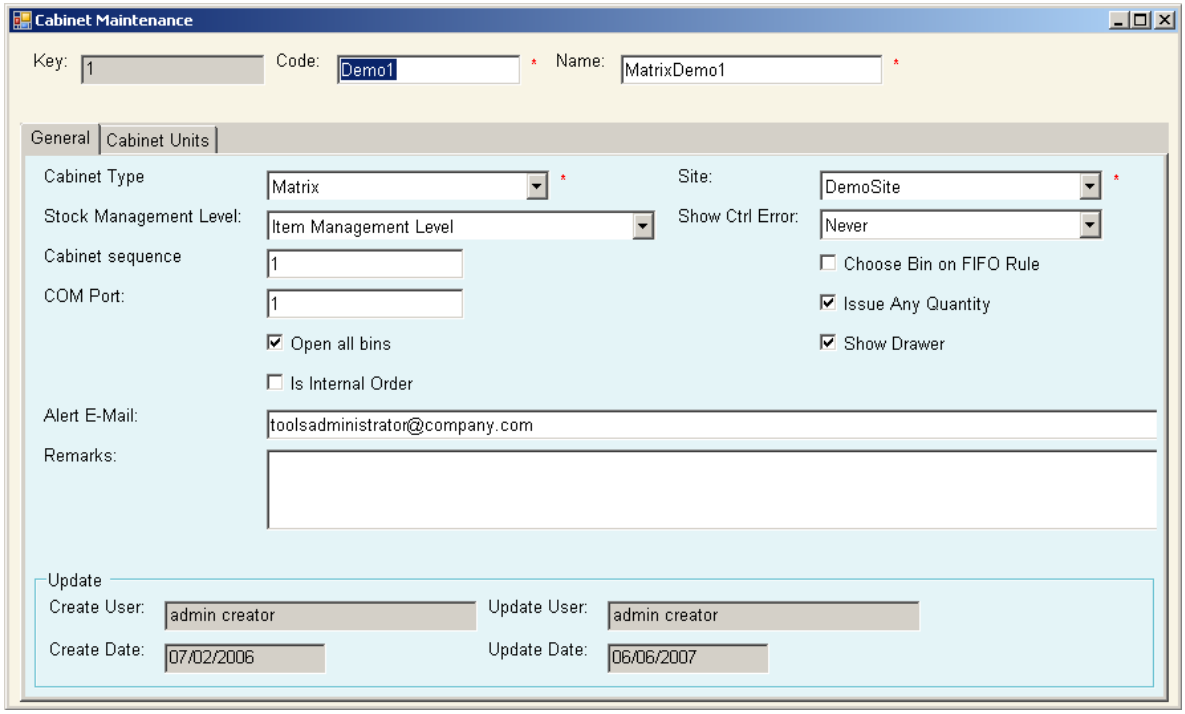
The "Cabinet Maintenance" screen can be used to enter new cabinets to the system or update existing ones. It contains the cabinet's code, name and key fields, as well as an indexed tab which consists of two tabs: "General" and "Cabinet Units".



5.2.1 Adding a Cabinet

1. Select "Menu: Main → Cabinet" in the system's main menu.
2. Click the  <Add> button on the Menu bar.
3. Enter the mandatory and regular fields according to the following description.
4. Click the  <Save> button on the Menu bar.
5. Enter the rest of the information regarding the cabinet and save again.

5.2.1.1 Tab: General



Fields Description:

This tab contains general details regarding the cabinet:

Code: A code for the cabinet which is used for generating bins for the drawers.

Name: A name for the cabinet

Cabinet Type: MATRIX, KARDEX or NON-AUTOMATIC types are available.

MATRIX: A cabinet that has drawers with predefined bin configurations. User will be able to build bins and bin units automatically by selecting the matching drawer type from a list of nine available configurations. You can also create the matching drawer types manually (for more information see Chapter B: Adding Drawer Types (section 5.2.3)).

KARDEX: A warehouse called Kardex Shuttle which contains open trays for storing large tools. This cabinet type can be connected by data cable to the MATRIX machine and activated through the touch screen. You will have to create new drawer types compatible to the trays configuration (For more information see Chapter B: Adding Drawer Types (section 5.2.3)).

NON-AUTOMATIC: Any warehouse such as tool cabinet or open shelves. The stock of such a warehouse can be managed as well by the MATRIX-

TM software by attaching it to the TOUCH definitions. In the TOUCH module, when the user will request to open a bin, he will be redirected to the warehouse. You will have to create new drawer types compatible to this manual warehouse (For more information see Chapter B: Adding Drawer Types (section 5.2.3)).

Stock Management Level: For creating automatic orders, set the appropriate stock management level for the cabinet:

Bin level – Uses the minimum and maximum quantities defined for each bin of the same cabinet.

Items/Cabinet level – Uses the minimum and maximum quantities defined for each item in the same cabinet.

Item level – Does not use the minimum and maximum quantities defined for Bin and Items/Cabinet levels.

Please note that the creation of automatic orders will depend also on the value of the System Option 903.

Sys Opt 903 / Cabinet	Bin	Item/Cabinet	Item	All levels
Bin	√			√
Item/Cabinet		√		√
Item			√	√

Cabinet Sequence: Cabinet sequence number in the chain of the cabinets attached to one master cabinet with the Touch screen.

The master cabinet sequence must be 1 and the other chained cabinets must be numerated by sequence.

COM Port: The COM port used by the TOUCH application to communicate with the cabinet.

Is Internal Order: If selected, when the auto-purchase process is executed it will create internal orders instead of purchase orders.

	Internal orders facilitate transferring stock to this cabinet from other cabinets.
Site:	Location site of the cabinet. This can be the factory where the cabinet is located.
Show CTRL Error:	Mode for displaying error messages on the TOUCH module, if there is a problem opening bins: 'Never', 'Always', 'Only in Issue' or 'Only in Issue & Receive' mode.
Choose Bin on FIFO Rule:	If selected, the item that in the cabinet bins will be suggested for issue by "First In, First Out" rule. This means that the bin filled with the item first, will be suggested for issue first. This parameter is not active.
Issue Any Quantity:	If selected, user will have no limit to issue any desired quantity. Otherwise the user will be able to issue only all of the quantity that is in the bin.
Show Drawer:	If selected, when opening the drawer, a Drawer Mapping window will be displayed on the TOUCH module.
Alert E-Mail:	E-Mail address of person who is responsible for the stock in order to alert him about a Zero-Issue transaction (stock-out).
Remarks:	Free text for remarks.

Of the above, the stock management level, cabinet type and site fields are mandatory.
The cabinet's creation date, date of update and the user who performed the last update will be automatically saved by the system and displayed at the bottom of the page.

5.2.1.2 Tab: Cabinet Units

This tab displays the coordinates for each unit in the cabinet, from which the bins are compiled. Some bins are compiled from one unit, for example bins in Drawer Type '1' (or known as D100-1, D50-1 etc.) in the MATRIX cabinet. And some bins are compiled of two or more units, such as bins in Drawer Type D-2 (known also as D100-2, D50-2 etc).
The coordinates are part of the instruction which is sent to open a certain bin.
In MATRIX Cabinet, the X / Y / Z coordinates of the unit which also has 'YES' value for "Sent" field usually represent the location of the latch which opens the bin.

In other cabinets, usually the drawers will look like open trays or shelves, therefore the field "Sent" will have 'NO' as its value.

In order to add these Cabinet Units to the list, usually you will need to use <Build Drawer> button for automatic generation of the Bin Units according to the cabinet type and drawer type. Please follow the next instructions for automatic and manual adding.

Figure 1: Cabinet type - MATRIX

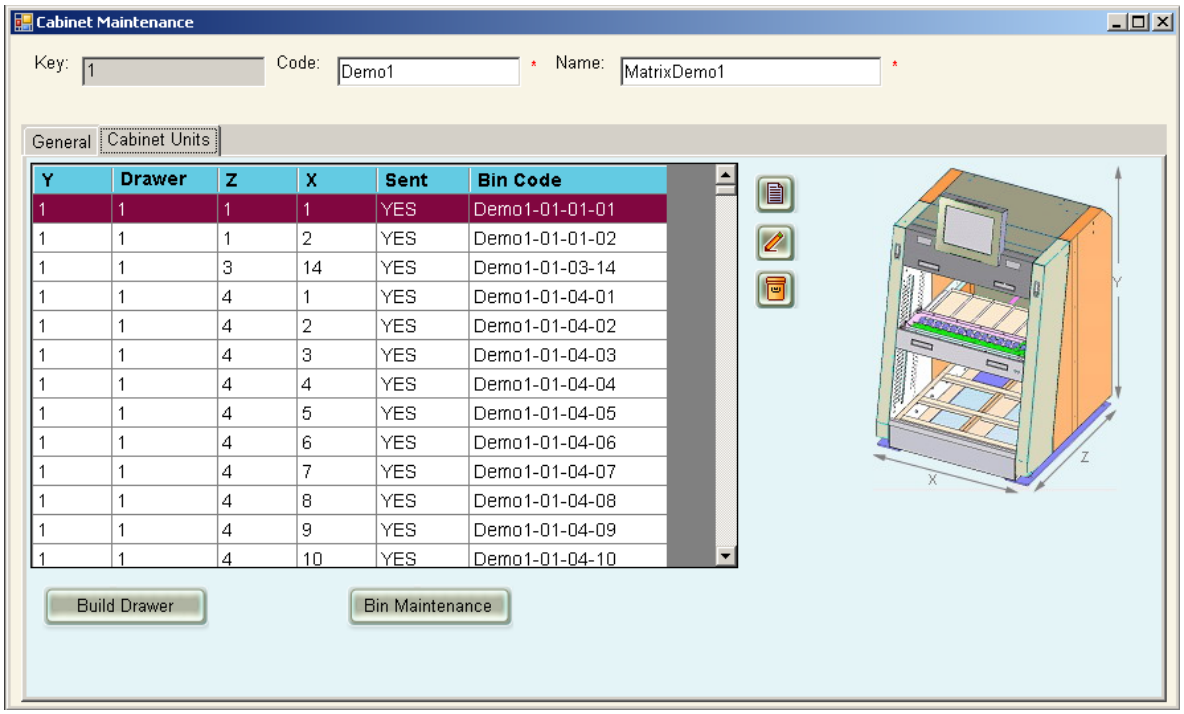

Cabinet Maintenance
Key: 1
Code: Demo1
Name: MatrixDemo1
General
Cabinet Units
Y | Drawer | Z | X | Sent | Bin Code
1 | 1 | 1 | 1 | YES | Demo1-01-01-01
1 | 1 | 1 | 2 | YES | Demo1-01-01-02
1 | 1 | 3 | 14 | YES | Demo1-01-03-14
1 | 1 | 4 | 1 | YES | Demo1-01-04-01
1 | 1 | 4 | 2 | YES | Demo1-01-04-02
1 | 1 | 4 | 3 | YES | Demo1-01-04-03
1 | 1 | 4 | 4 | YES | Demo1-01-04-04
1 | 1 | 4 | 5 | YES | Demo1-01-04-05
1 | 1 | 4 | 6 | YES | Demo1-01-04-06
1 | 1 | 4 | 7 | YES | Demo1-01-04-07
1 | 1 | 4 | 8 | YES | Demo1-01-04-08
1 | 1 | 4 | 9 | YES | Demo1-01-04-09
1 | 1 | 4 | 10 | YES | Demo1-01-04-10
Build Drawer
Bin Maintenance
Y
X
Z

Figure 2: Cabinet type - Kardex

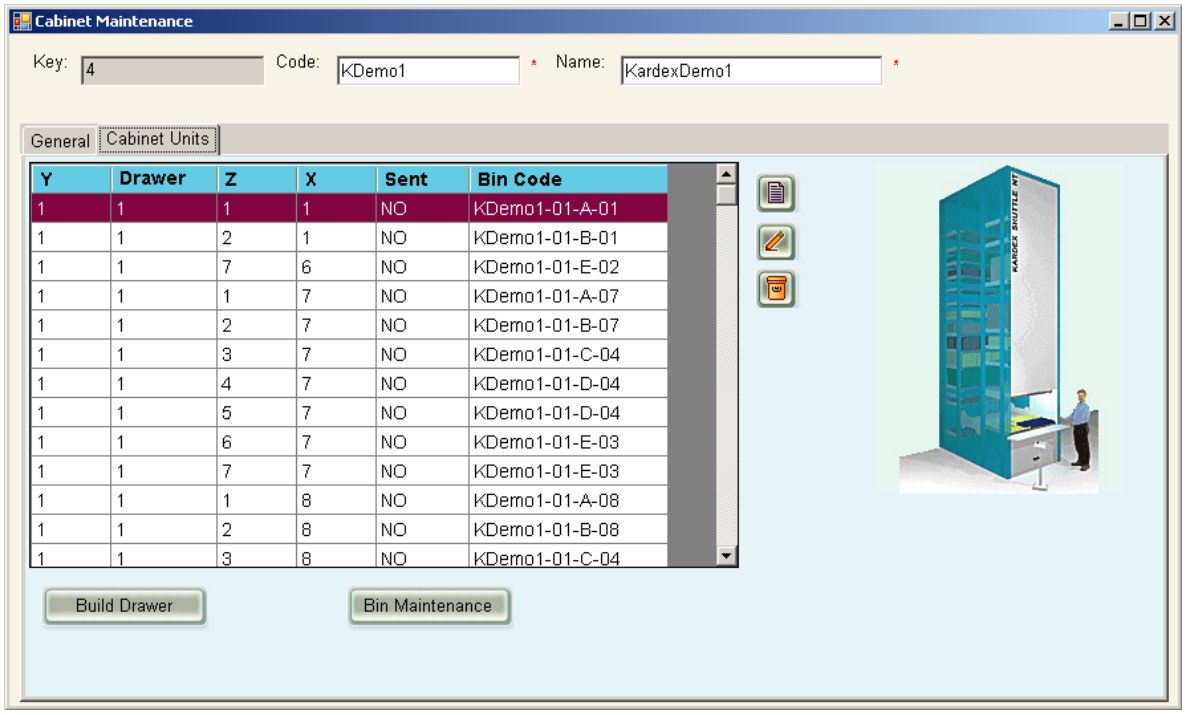
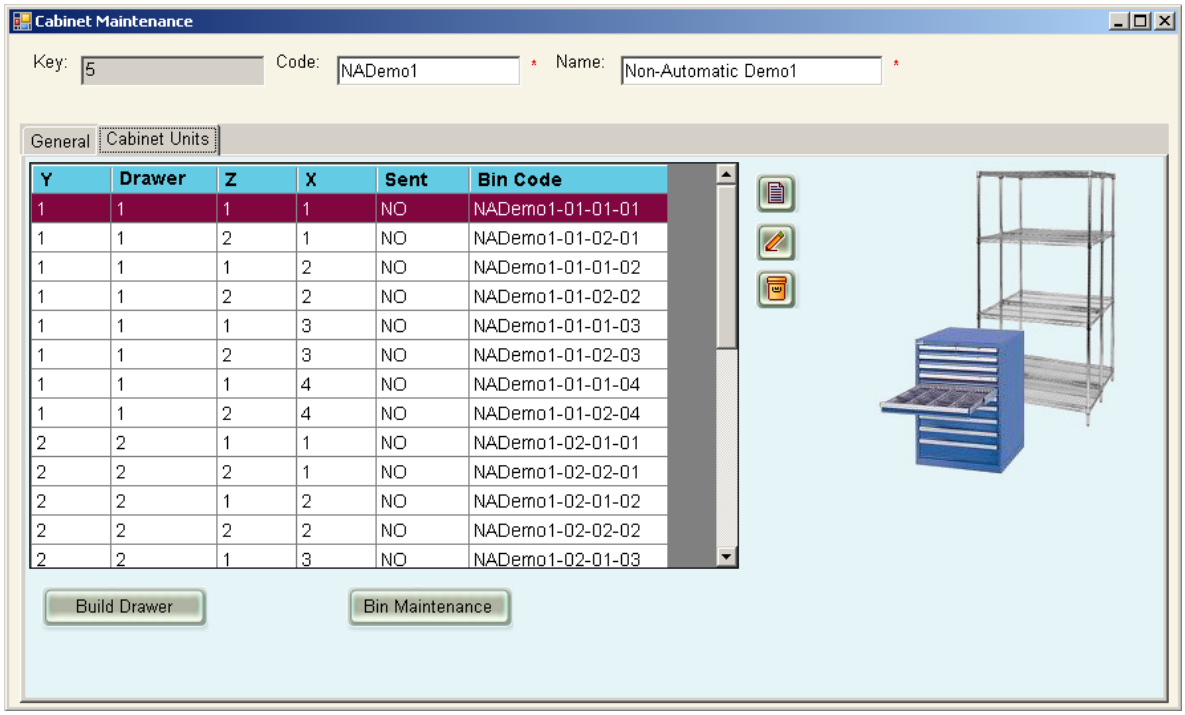

Cabinet Maintenance
Key: 4
Code: KDemo1
Name: KardexDemo1
General
Cabinet Units
Y | Drawer | Z | X | Sent | Bin Code
1 | 1 | 1 | 1 | NO | KDemo1-01-A-01
1 | 1 | 2 | 1 | NO | KDemo1-01-B-01
1 | 1 | 7 | 6 | NO | KDemo1-01-E-02
1 | 1 | 1 | 7 | NO | KDemo1-01-A-07
1 | 1 | 2 | 7 | NO | KDemo1-01-B-07
1 | 1 | 3 | 7 | NO | KDemo1-01-C-04
1 | 1 | 4 | 7 | NO | KDemo1-01-D-04
1 | 1 | 5 | 7 | NO | KDemo1-01-D-04
1 | 1 | 6 | 7 | NO | KDemo1-01-E-03
1 | 1 | 7 | 7 | NO | KDemo1-01-E-03
1 | 1 | 1 | 8 | NO | KDemo1-01-A-08
1 | 1 | 2 | 8 | NO | KDemo1-01-B-08
1 | 1 | 3 | 8 | NO | KDemo1-01-C-04
Build Drawer
Bin Maintenance

Figure 3: Cabinet type - Non-Automatic


Cabinet Maintenance
Key: 5
Code: NADemo1
Name: Non-Automatic Demo1
General
Cabinet Units
Y | Drawer | Z | X | Sent | Bin Code
1 | 1 | 1 | 1 | NO | NADemo1-01-01-01
1 | 1 | 2 | 1 | NO | NADemo1-01-02-01
1 | 1 | 1 | 2 | NO | NADemo1-01-01-02
1 | 1 | 2 | 2 | NO | NADemo1-01-02-02
1 | 1 | 1 | 3 | NO | NADemo1-01-01-03
1 | 1 | 2 | 3 | NO | NADemo1-01-02-03
1 | 1 | 1 | 4 | NO | NADemo1-01-01-04
1 | 1 | 2 | 4 | NO | NADemo1-01-02-04
2 | 2 | 1 | 1 | NO | NADemo1-02-01-01
2 | 2 | 2 | 1 | NO | NADemo1-02-02-01
2 | 2 | 1 | 2 | NO | NADemo1-02-01-02
2 | 2 | 2 | 2 | NO | NADemo1-02-02-02
2 | 2 | 1 | 3 | NO | NADemo1-02-01-03
Build Drawer
Bin Maintenance

Cabinet Units – Automatic Generation

The Build Drawer button is an automatic function which automatically builds all bins for a certain drawer configuration. This is a sensitive option which has a strong impact on the database, and therefore should be used only by the administrator.

1. Click the <Build Drawer> button on the "Cabinet Maintenance" screen on the "Cabinet Units" tab. The following screen will appear:

Figure 4: Cabinet type - MATRIX

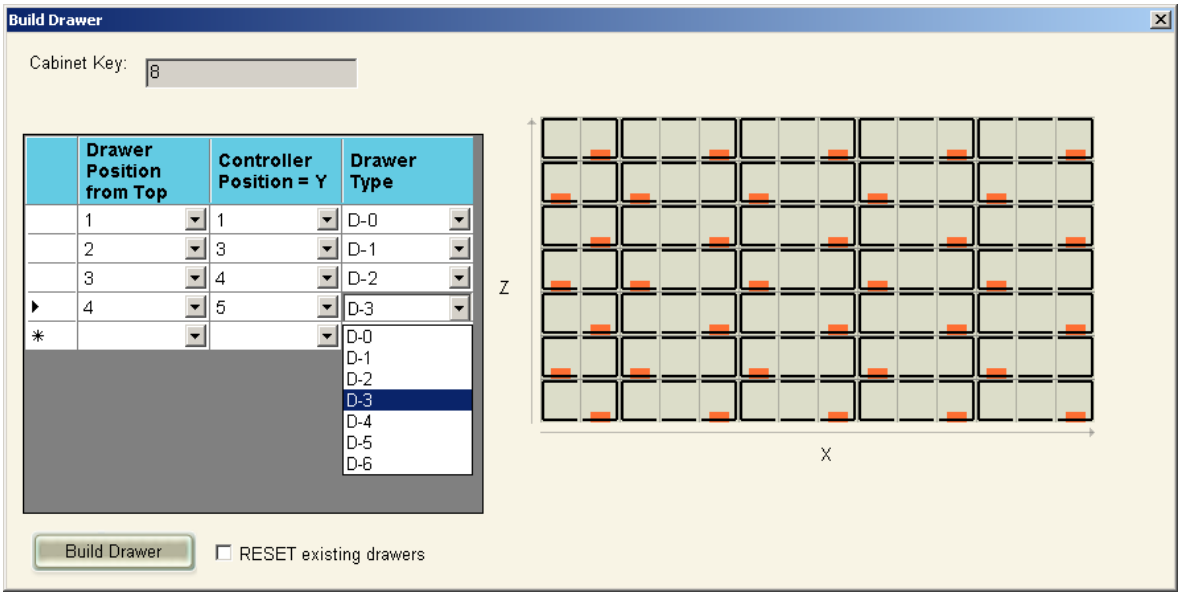
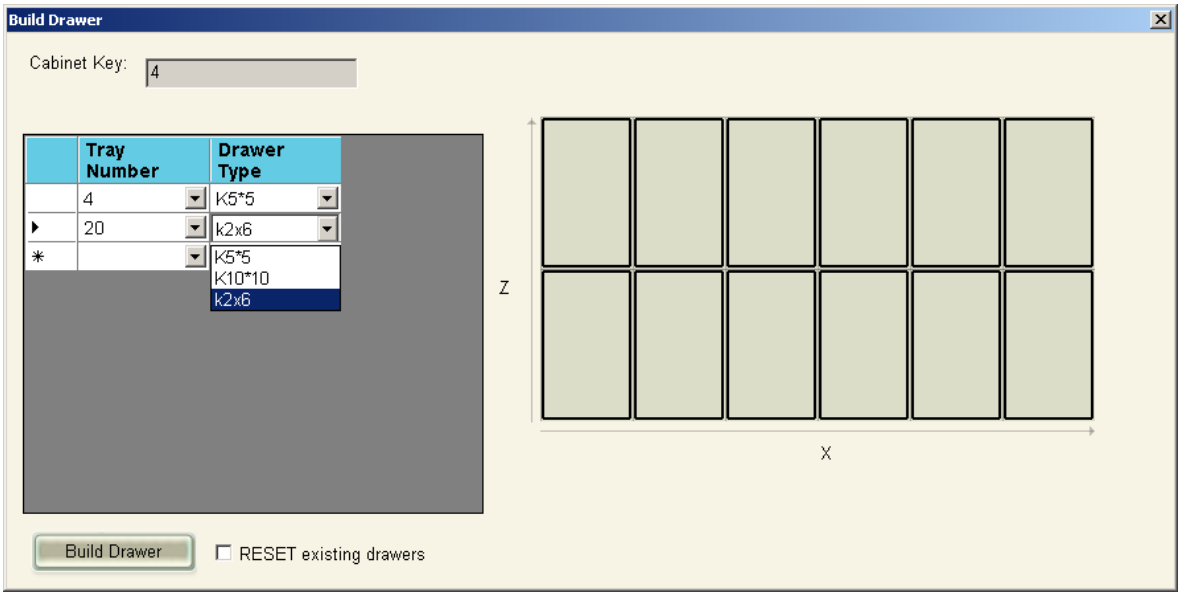


Figure 2: Cabinet type – KARDEX or NON-AUTOMATIC



2. For each drawer fill in the required parameters:

   MATRIX cabinet type:

   Drawer Position from Top: **Visual** position of the drawer

   Controller Position: **Physical** position of the drawer controller plug-in that can be seen when removing the cabinet side panel.

   Drawer Type: Pre-defined nine drawer configurations. Select the configuration suitable to your cabinet drawer.

   KARDEX or NON-AUTOMATIC cabinet type:

   Tray Number: Physical position of the tray / drawer / shelf etc…

   Drawer Type: Pre-defined Drawer Types. For more information see Chapter B: Adding Drawer Types (section 5.2.3)

3. Sign the "RESET existing drawers" box if you wish to replace the existing drawers with the new definitions.
4. Click the <Build Drawer> button on this screen.

   This will add drawers with **bins** and **bin units** to the "Cabinet Units" tab, which will be also available for editing.

Recommendation: To save time on setting values for the fields, you can set default values that will be loaded when creating new bins. For more information see Chapter B: Defaults List (section 5.6).

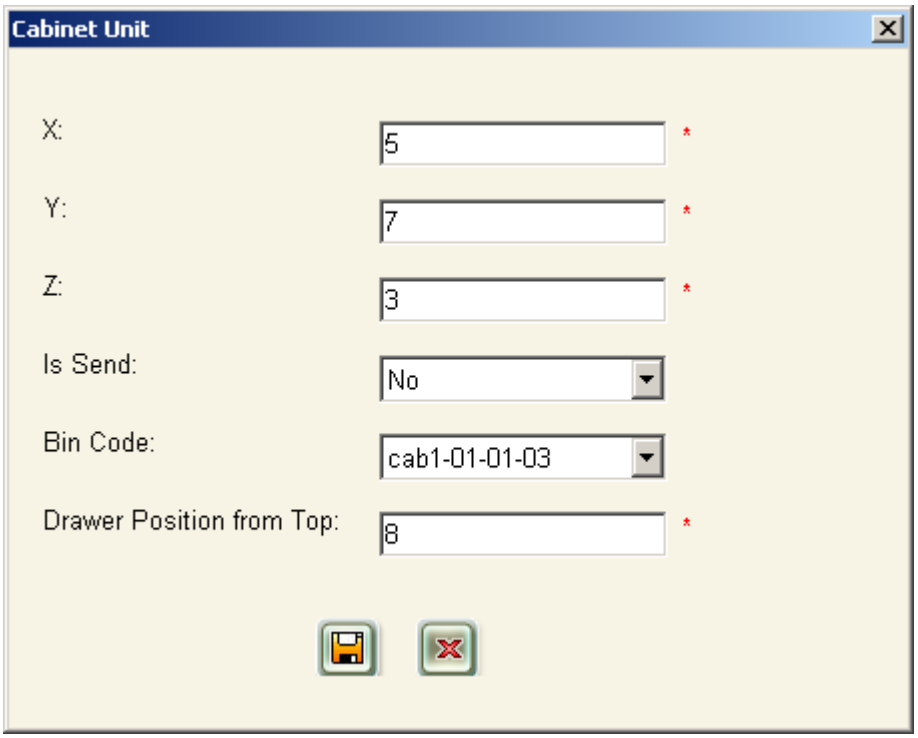
5. Save the data by clicking the <Save> button on the Menu bar.

For more information, it is important to read Chapter A: Bin Location (section 5.3.3).

Cabinet Units – Manual Creation

Usually the cabinet units need to be generated automatically as previously described. If you still wish to add or edit manually the cabinet units, you first need to create the bins in order to be able to associate cabinet units with bins.

1. Click the <Add> button or … Mark a certain row and click the <Update> button. The buttons are located on the "Cabinet Maintenance" screen on the "Cabinet Units" tab at the right side of the grid. The "Cabinet Unit" screen will appear.



In MATRIX Cabinet, the X / Y / Z coordinates of the unit which also has 'YES' value for "Sent" field usually represent the location of the latch which opens the bin.
In other cabinets, usually the drawers will look like open trays or shelves, therefore the field "Sent" will have a 'NO' as value.

2. Define the required parameters:

XYZ coordinates – These fields indicate the location of the cabinet unit (also called bin unit), which is the smallest component in the bin definition.

X: Location of bin unit from left to right.

Y: In MATRIX cabinet type, number of the drawer controller plug in * from top to bottom. Otherwise, tray number.

Z: Location of bin unit from front to back.

Sent: In MATRIX cabinet type, if this bin unit has a latch that opens the bin, this value should be set to 'YES' in order to indicate that this bin unit should be sent to the machine to enable opening of the bin. Otherwise it should be set to 'NO'.

Bin Code: The Bin Code from the bins list. Each Bin Code comprises a number of bin units.

Drawer Position from Top: In MATRIX cabinet type, number of the drawer * from top to bottom. Otherwise, tray number.

Note: The exact same base unit (with specific XYZ values) can only be defined once. But the same Bin Code can be defined for two or more bin units, because bins can be comprised of more than one bin unit.

For more information, it is important to read Chapter A: Bin Location (section 5.3.3).

3. To save the bin Unit, click the <Save> button.

Cabinet Units – Deleting Bin unit

In order to delete a cabinet's base unit:

1. Mark the required unit on the "Cabinet Maintenance" screen on the "Cabinet Units" tab and click the <Update> button that is on the right side of the grid.
2. If the unit has a Bin Code value, remove the bin code value and save the change.
3. Click the <Delete> button that is on the right side of the grid.

5.2.2 Deleting an Entire Cabinet

In order to delete a cabinet:

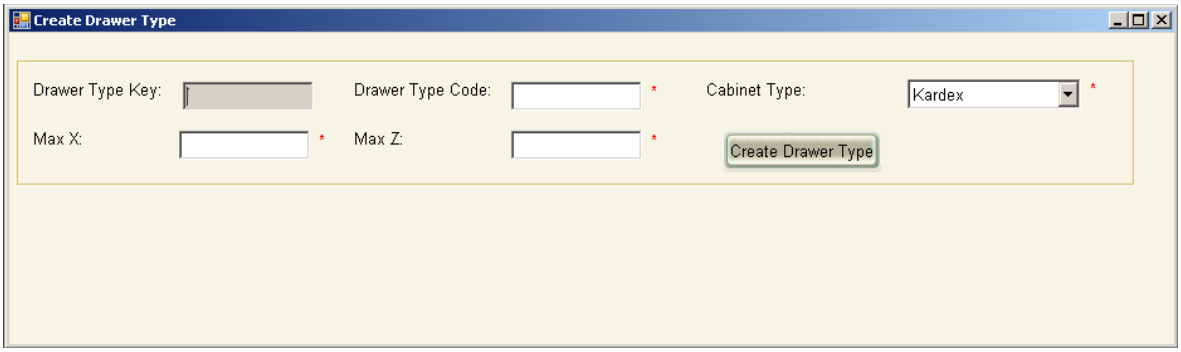
1. If the cabinet has Bins and / or Bin Units, you must first delete them following the deletion instructions described in this guide.
2. .Mark the required cabinet record and click the <Delete> button on the Menu bar.

5.2.3 Adding Drawer Types

This module allows adding any drawer type by any configuration of bins in order to support managing stock in the KARDEX cabinet and NON-AUTOMATIC warehouses.

You can also build a manual configuration for a MATRIX drawer in addition to the predefined drawer types.

1. Open "Menu: Administration → Touch Machine → Drawer Type".
2. Click the <Add> button. The screen "Create Drawer Type" will be displayed.



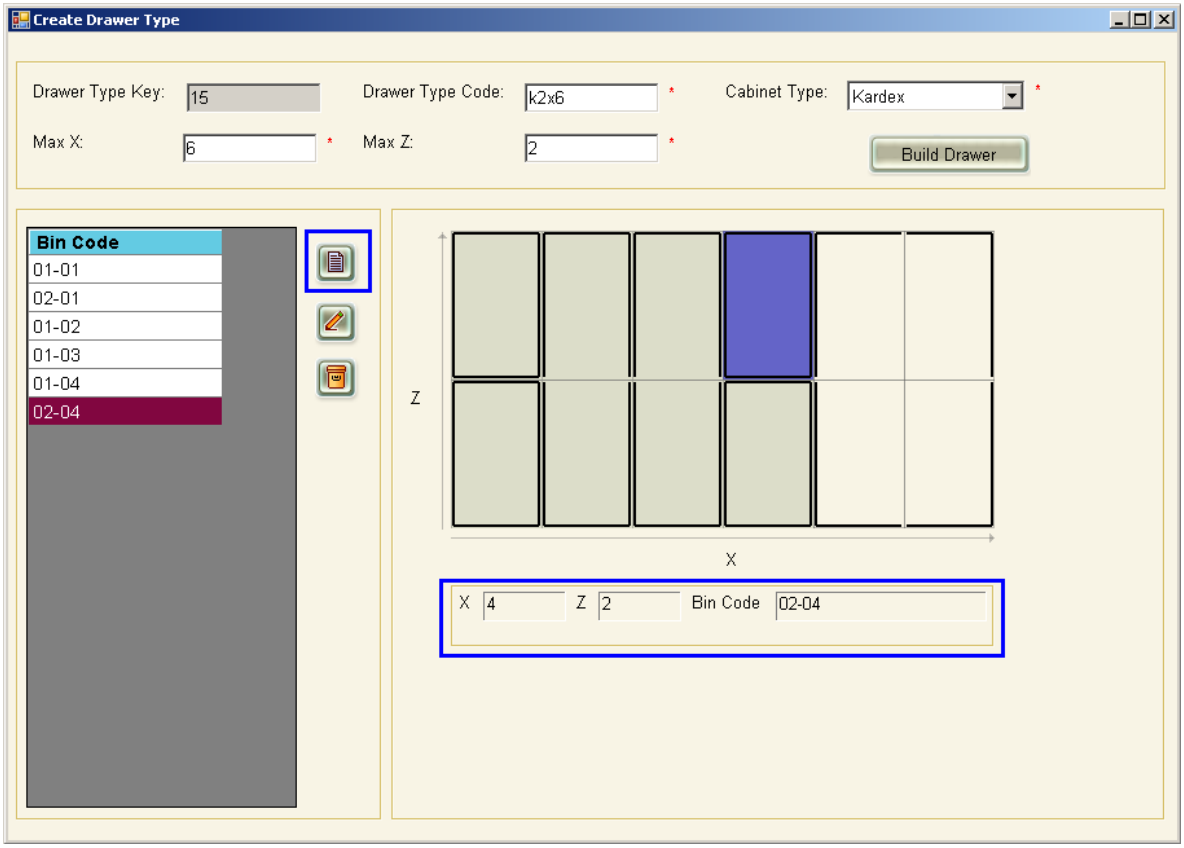
Cabinet Type *: Select the type of the cabinet for which you wish to add a drawer type.

Max X *: The number of bins in the row.

Max Z *: The number of bins in the depth (number of rows).

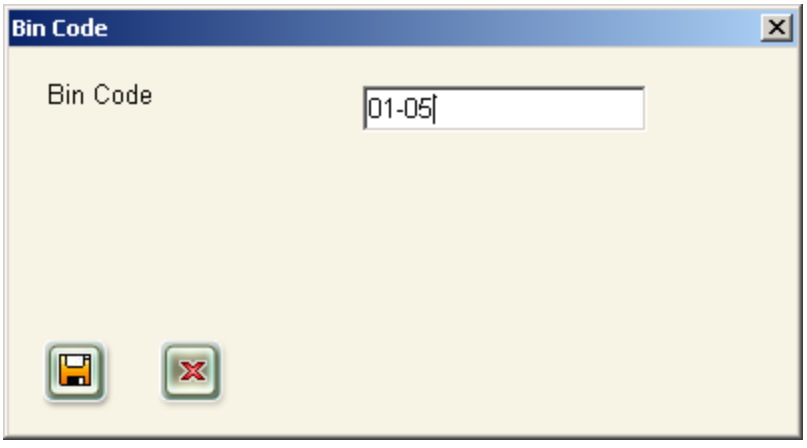
Drawer Type Code *: Insert any drawer code. For example, K2x6, for drawer of Kardex type with configuration of 2 rows and 6 columns.

3. Fill in the values and click the <Create Drawer Type> button. This will create an empty grid by the defined size, which we will use as a base for defining Bin Units. Moving a mouse over the grid will display its coordinates.



4. In order to build a bin for each grid division, click the <Build Drawer> button and it will automatically create all the bin codes. Otherwise, if you want to create bin codes based on a few divisions, continue to the next step for manual definitions.

5. Click the  <Add> button on this screen in order to add a Bin Code. The following screen will be displayed.



6. Insert value for Bin Code, for example, 01-05, for a bin in the first row and fifth column and click the <Save> button.
7. Select on the grid the divisions that you want to use for this Bin Code. You can select more than one division from those which are closely linked. By default, it will select the first available division which was not yet related to any other bin code.
8. Repeat the same steps for creating more Bin Codes filling the whole or part of the grid.
9. Save the Drawer Configuration by clicking the <Save> button on the Menu bar. Now this drawer type will be available for use in the "Cabinet Maintenance" screen on the "Cabinet Units" tab.

5.3 Bin

The bin is the basic stock management unit. Each bin is associated with the item it stores. A bin that is not associated with an item is regarded as an inactive bin.

The bin screen displays the bins details and allows updating existing bins or adding new ones. Located at the top of the page are the general constant bin details:

Bin Key: The bin's unique identifier, an automatic number that uniquely identifies the bin and cannot be updated. Each bin receives this ID from the database.

Bin Code: Describes the bin's location in the cabinet. For example, the code **B-01-02-03** describes a bin, which is located in cabinet B, first drawer, and the second row and third column of bins in that drawer . Notice that this is our recommendation for managing MATRIX type cabinets. You can choose any other scheme of bin codes, but be sure to make it consistent with the structure of your cabinet or warehouse.

Cabinet Code: The bin's cabinet code

Item Code & Description: The stored item's code. This code can be selected from the available codes list (which is displayed when clicking the button). A bin can be created without an associated item.

The main part of the page is the tab index, which includes the following entries: **General**, **Stock Management**, **Additional Fields**, **Usage, Transactions, Orders** and **Bin Units**.

5.3.1 Adding a Bin

Bins are usually added automatically when adding **Cabinet** and **Drawers**.

In some cases we would like to add them manually, for example, when using MATRIX drawer type D-0 with no physical bins. In this case we need to divide the drawer into **virtual bins – the pre-allocated position of the item within the drawer or shelf**.

For manual bin creation, follow the instructions below:

1. Select "Menu: Main → Bin" in the system's main menu.
2. Click the  <Add> button on the Menu bar.
3. Enter values for the mandatory:
   Bin Code *: Enter a name for the bin.
   Cabinet Code: Select the cabinet that the bin belongs to.



Note: The Chapter B: Bin Location (section 5.3.3) describes the principles used by the software to name bins (in the Bin Code field) which are automatically created. You can use the same principle for bins defined manually.

4. Save the bin by clicking the  <Save> button.
   At this point the other tabs will become available for update.

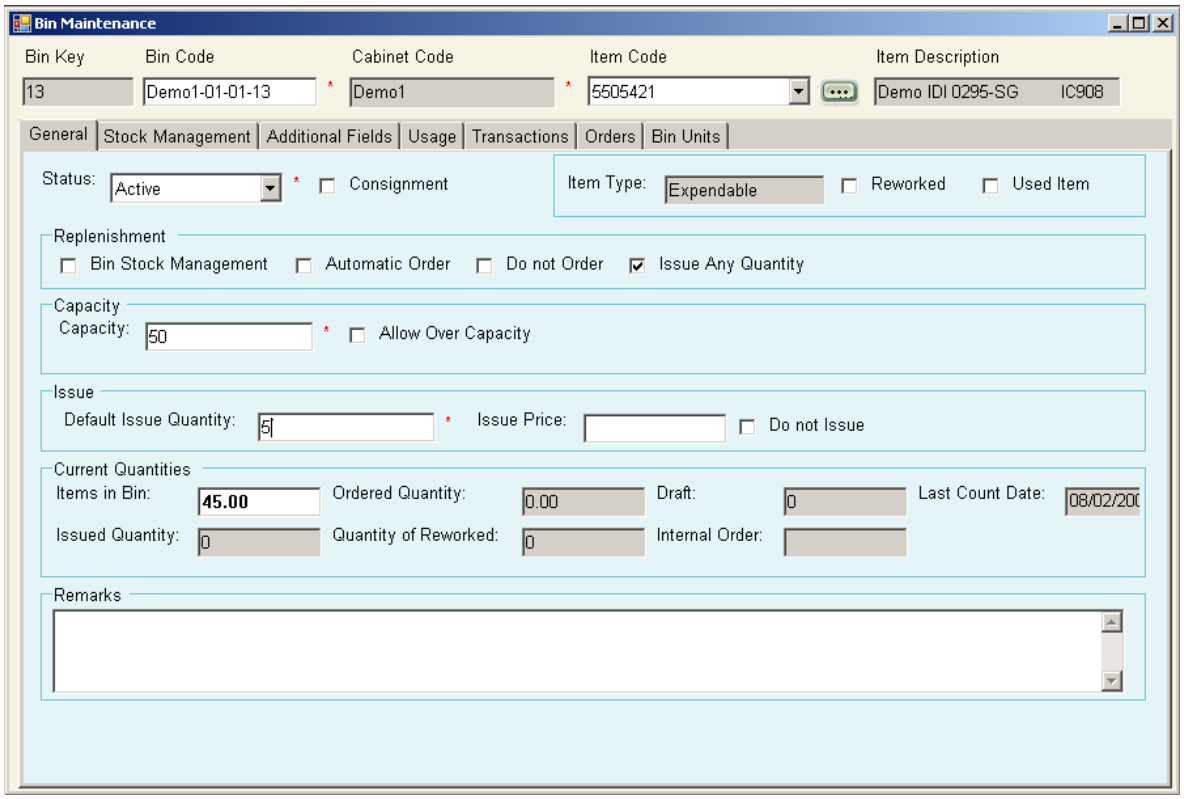


Recommendation: To save time on setting values for the fields, you can set default values that will be loaded when creating new bins. For more information see Chapter B: Defaults List (section 5.6).

5. If you need to access the bins on the TOCH module, you have to manually create the bin units. Without bin units the access to this bin **will be impossible** in Touch module. For instructions on how to add bin units, see Chapter B: Tab: Cabinet Units (section 5.2.1.2, subsection **'Cabinet Units – Manual Creation'**)

5.3.1.1 Tab: General

This tab contains general information regarding the bin:



Fields description:

Status *: Indicates the bin's status – Active / Not active. This field is mandatory.

Consignment: If the bin is marked "Consignment", the issue transactions made from this bin will also be marked as consignment. This will allow Issue transactions to be invoiced.

Item Type: Non-editable field which displays the type of item associated with this bin. This item type determines the available functionalities for the bin. More information is described in the Chapter B: ITEM Life Cycle (section 5.4.4).

Reworked: If the bin is marked "Reworked", the items in this bin have been received from a rework (regrinding). Sometimes it is important to differentiate between new items and between items which have been reworked.

Used Item: Indicates whether the bin contains a new or used item. See the following table for an explanation of this code.

Bin Stock Management: States whether the stock is managed at the bin level. This means that the automatic PO process will replenish according to the Min and Max of the specific bin. Default value = not checked.

Automatic Order: If checked, the automatic processing will initiate orders for this bin. Default value = checked.

Do not Order: If checked, no order can be processed for this bin (either automatically or manually). Default value = not checked.

Issue Any Quantity: If selected, the user may issue any quantity up to the maximum stock in the bin. If not, the user must issue the entire quantity of stock in the bin.

Capacity *: The maximum number of items that can be stored in this bin.

Allow Over Capacity: If checked, the system will allow inserting a number of items in the bin which exceeds the specified capacity. Default value = checked.

Default Issue Quantity *: The default number of items that will be issued per one issue. This value can be modified.

Issue Price: The item's price used for the Issue transactions. If no price exists the price will be taken from the Item Price.

Do not Issue: If checked, the system will not allow issuing items from this bin. Default value = not checked.

Items in Bin: The current stock quantity of items in the bin. When this number is modified, a stock adjustment will take place (see additional details below).

Issued Quantity: The issued quantity from this bin, if the associated item type is 'Durable'. Supplies information about the number of items issued that should be returned to stock.

Ordered Quantity: The quantity of ordered items for this bin

Rework Orders: The quantity of items sent to regrind process from this bin.

Draft: The quantity of items in Draft status for this bin.

Internal Order: The quantity of items in an Internal Order.

Last Count Day: The date of the most recent stocktaking.

Return item options:

In the table below, you will find an explanation as to how the item types connect to the different bin flags. This is our recommendation; it is possible also to work differently.

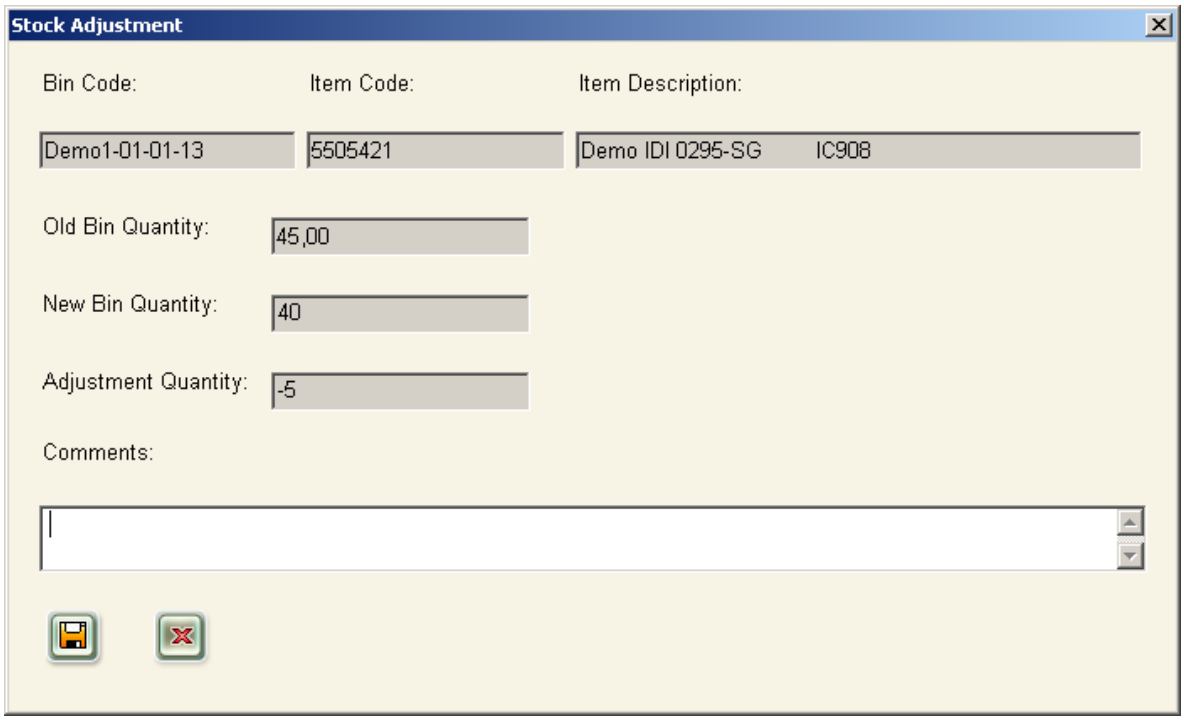
		Bin Flags			
Item Type + Status		Reworked	Used Item	Do not Issue	Do not Order
Durable	New				
	Used		√		√
Expendable	New				
Reworkable	New				
	Used, needs a Rework / Regrind		√	√	√
	After rework	√			√

5.3.1.2 Stock Adjustment

A stock adjustment transaction is initiated by the user when there is an inconsistency between the stock quantity and the number of items in the bin ("Items in Bin" field).

To change the stock:

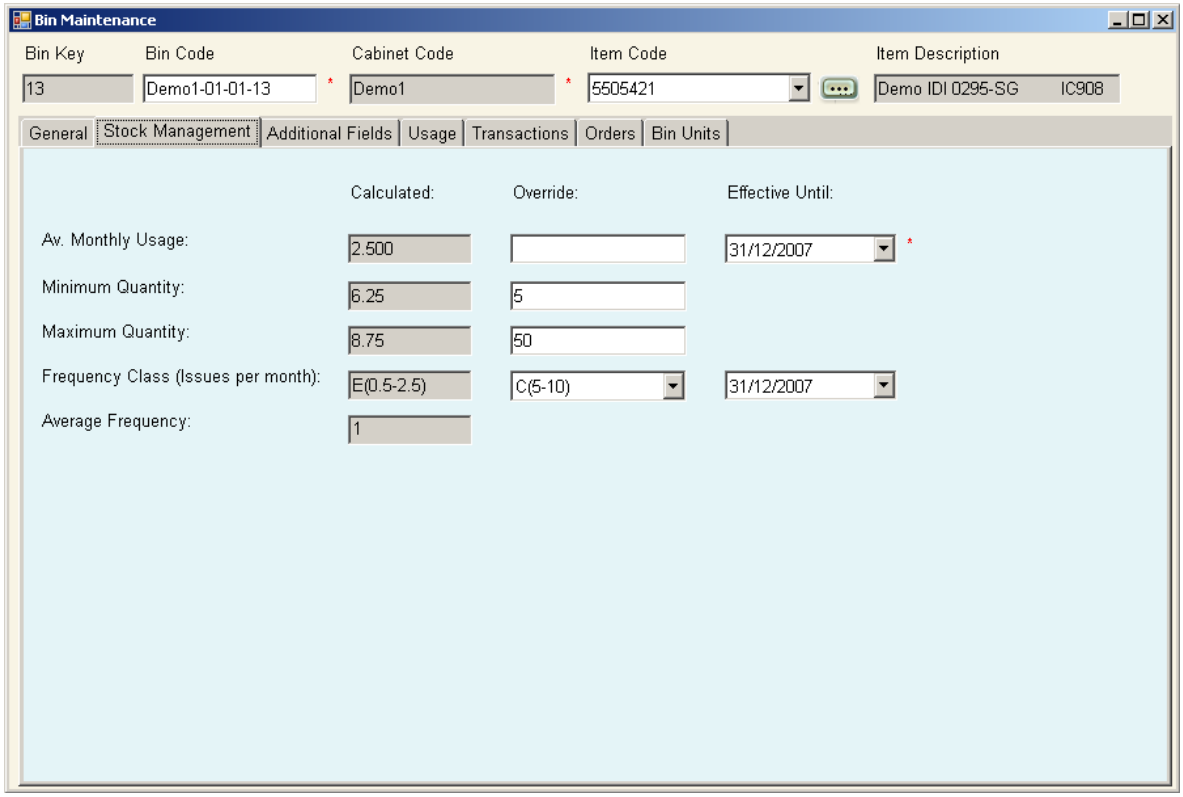
1. Change the quantity in field "Items in Bin" and click the <Save> button (or set focus to other field). At this point the user is asked whether he wishes to modify the stock quantity.
2. If you choose not to update, the operation will be cancelled, and the field will contain the amount already recorded in the database. Otherwise the following "Stock Adjustment" screen will be displayed:



3. We recommend inserting a remark to explain the reason for the adjustment. Save the changes. After saving the transaction's details, the system will perform the adjustment for the relevant bin.

5.3.1.3 Tab: Stock Management

This tab displays information of stock management on the Bin level in order to replenish the stock by automatic purchase orders.



Average Usage: The average issue transaction quantity per month for this item.

Minimum Quantity: Indicates the item's minimum quantity. If the stock level in this bin is less than this quantity, a new order will be initiated to renew the stock to its maximum level.

Maximum Quantity: Indicates the item's maximum quantity. If the stock level in this bin is less than the minimum quantity, a new order will be initiated to replenish the stock to its maximum level.

Frequency Class (Issue transactions per month): The average frequencies are classified by groups: Group A – a most active bin (measured in number of issue transactions per month); and Group B – a less active bin.

Average Frequency: The average number of orders per month for this bin.

The column "Calculated" displays automatically calculated values as a result of running "Monthly Usage Process".

The column "Override" enables overriding the automatically calculated values.

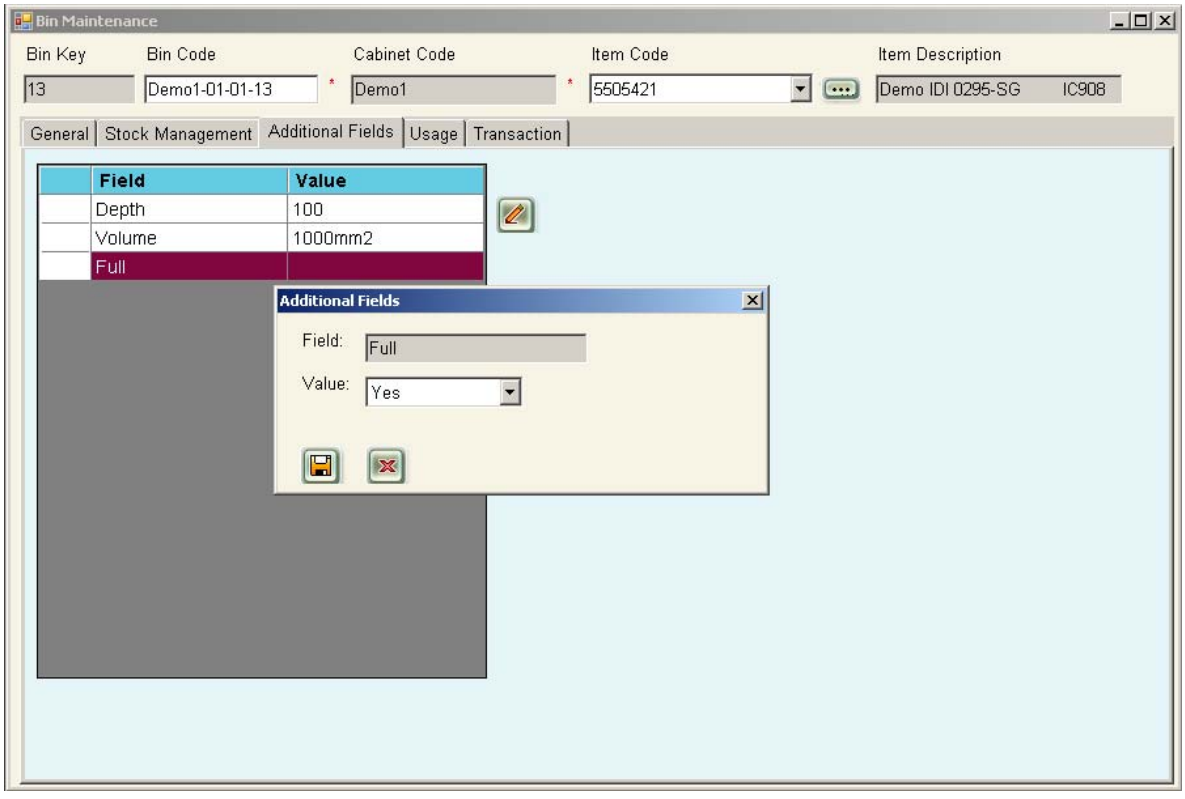
If the "Override" column has input and the "Effective Until" date has not expired, the Automatic Purchase order process will create orders according to the input. Otherwise, it will create the orders according to the data in the "Calculated" column.

For more information see Chapter D: Monthly Process (section 21.1) and Chapter D: Automatic PO Process (section 21.2).

5.3.1.4 Tab: Additional Fields

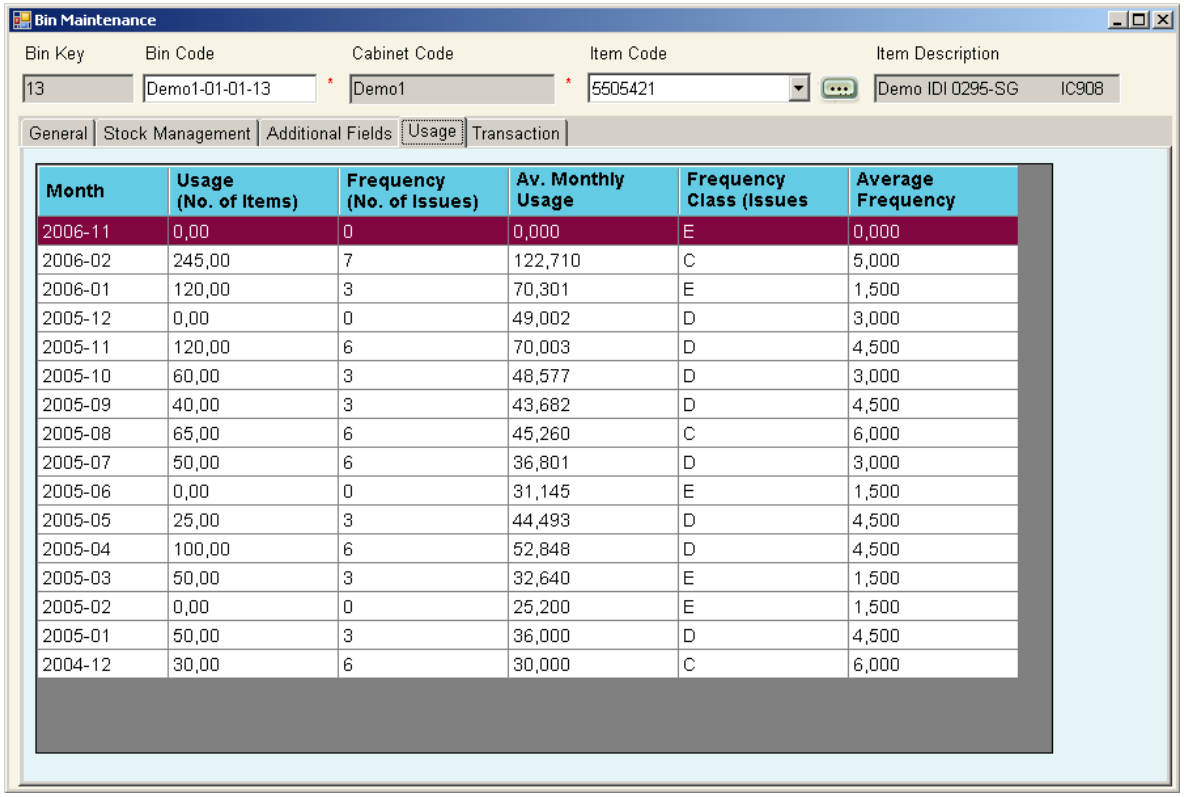
This tab displays the additional fields (of types: Numeric, Text, Boolean and Date) that were defined for the Bin entity in the "Additional Fields" screen.

This screen only allows you to edit the fields that were already added. For instructions how to add more fields to the entity, see Chapter B: Additional Fields (section 5.5).



5.3.1.5 Tab: Usage

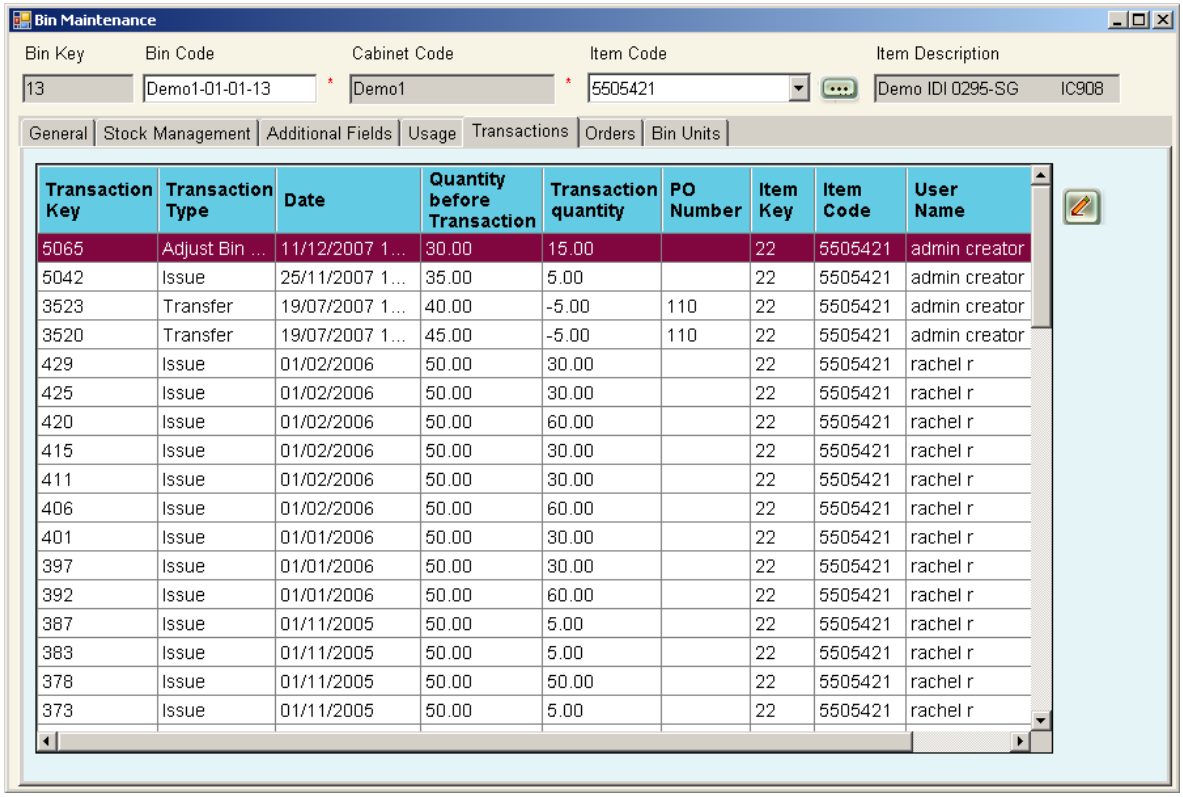
This tab displays the average usage data and issues frequency related to the Bin for previous months. The usage screen gives a good indication for the activity of the Bin. User can track in this tab the Usage, Average Usage and Frequency or issues for the Bin per month.



Month	Usage (No. of Items)	Frequency (No. of Issues)	Av. Monthly Usage	Frequency Class (Issues	Average Frequency
2006-11	0,00	0	0,000	E	0,000
2006-02	245,00	7	122,710	C	5,000
2006-01	120,00	3	70,301	E	1,500
2005-12	0,00	0	49,002	D	3,000
2005-11	120,00	6	70,003	D	4,500
2005-10	60,00	3	48,577	D	3,000
2005-09	40,00	3	43,682	D	4,500
2005-08	65,00	6	45,260	C	6,000
2005-07	50,00	6	36,801	D	3,000
2005-06	0,00	0	31,145	E	1,500
2005-05	25,00	3	44,493	D	4,500
2005-04	100,00	6	52,848	D	4,500
2005-03	50,00	3	32,640	E	1,500
2005-02	0,00	0	25,200	E	1,500
2005-01	50,00	3	36,000	D	4,500
2004-12	30,00	6	30,000	C	6,000

5.3.1.6 Tab: Transactions

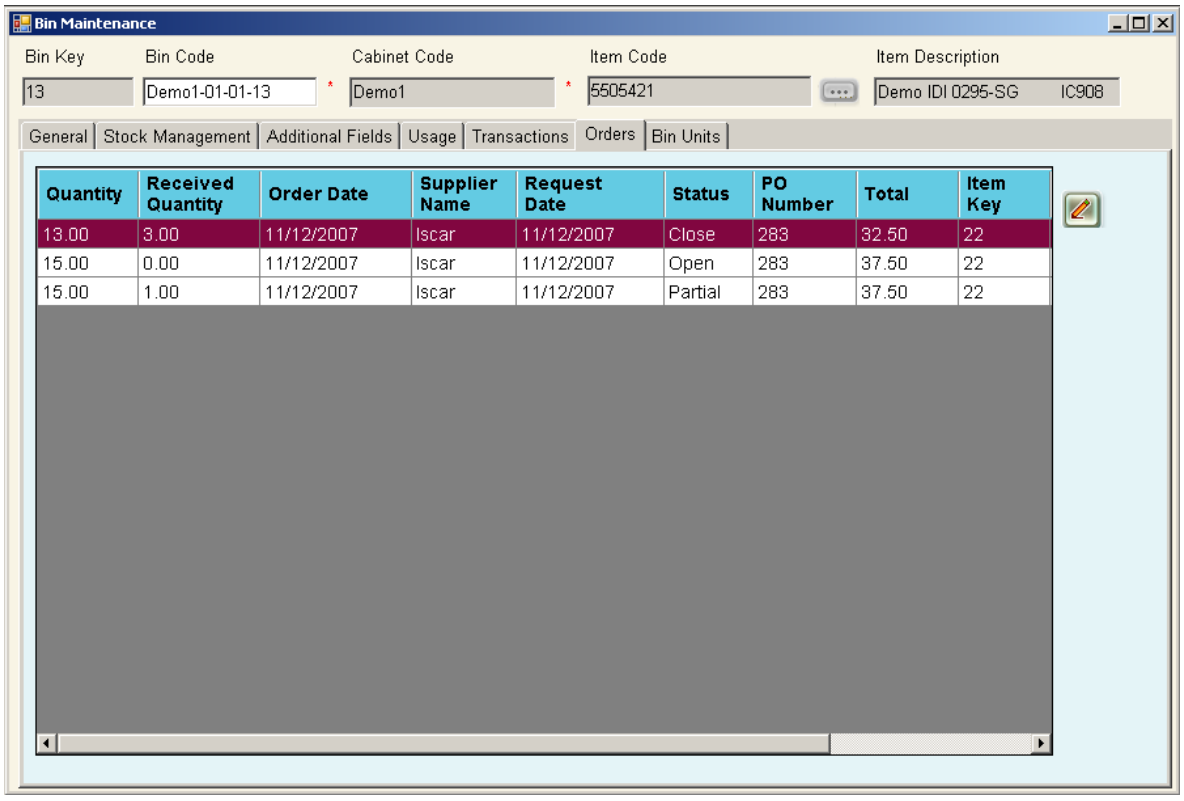
This tab displays all the transactions for the Bin.



5.3.1.7 Tab: Orders

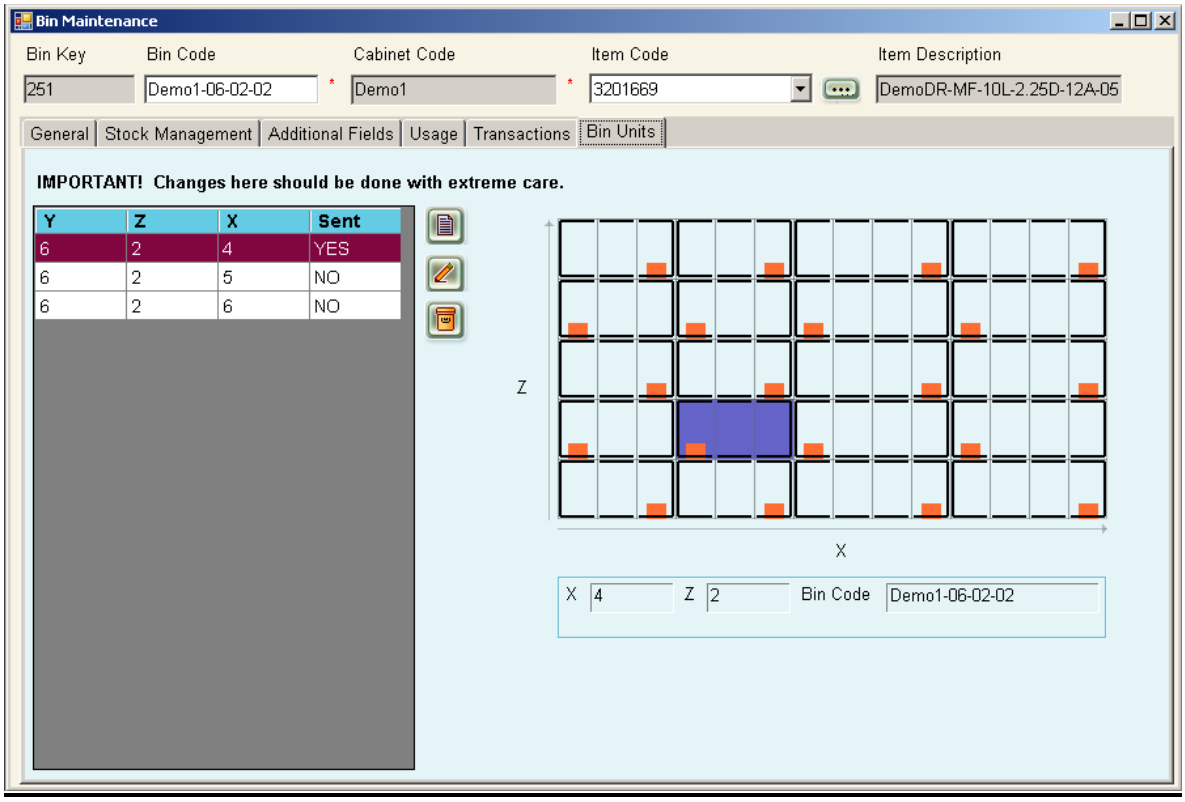
This tab displays all the orders created for the particular Bin.

By selecting order line and clicking <Update>, the Order Maintenance for the selected order line will be displayed.



5.3.1.8 Tab: Bin Units

This tab displays the Current bin location and all its Bins units on the grid of the whole drawer. Changes here should be done with **extreme** care, because it will change the bin coordinate definitions and might prevent the bin from opening.



5.3.2 Deleting a Bin

To delete a bin, select the required bin's record from the bin list and click the <Delete> button on the Menu bar.

Note: A bin that has been associated with an item cannot be deleted until the item definition and its stock is removed. In this case, first adjust the stock in the bin to zero, remove the value from the "Item Code" field by selecting the first empty value from the list and then delete the bin.

5.3.3 Bin Location

Each bin has its physical location known as **Bin Units** and visual location known as the **Bin Code**:

Physical location:

The physical location of the bin is defined by the location of the **bin latch relative** to the **drawer slots**. The physical location of the bin is used for defining the X-Y-Z coordinates for creating the bin unit in order to communicate with the cabinet.

For example, the physical location of the **blue bin** from the diagram below will be:

Y = **3** = Number of the **drawer controller socket*** on the side board from top to bottom

Z = **5** = Location of **bin latch** from front to back

X = **4** = Location of **bin latch** from left to right

This location is stored in the "Cabinet Units" in the cabinet.

For this, follow: Main → Cabinet, select a Cabinet and then tab "Cabinet Units".

For more information, follow Chapter B: Tab: Cabinet units (section 5.2.1.2).

* As seen when removing side panel

Visual location:

The visual location of a bin is defined by the location of the **bin relative** to the **left front corner**. The visual location of the bin is used for the name of the bin, called a **Bin Code** in the MATRIX-TM software modules.

For example, the visual location of the **blue bin** from the diagram below will be:

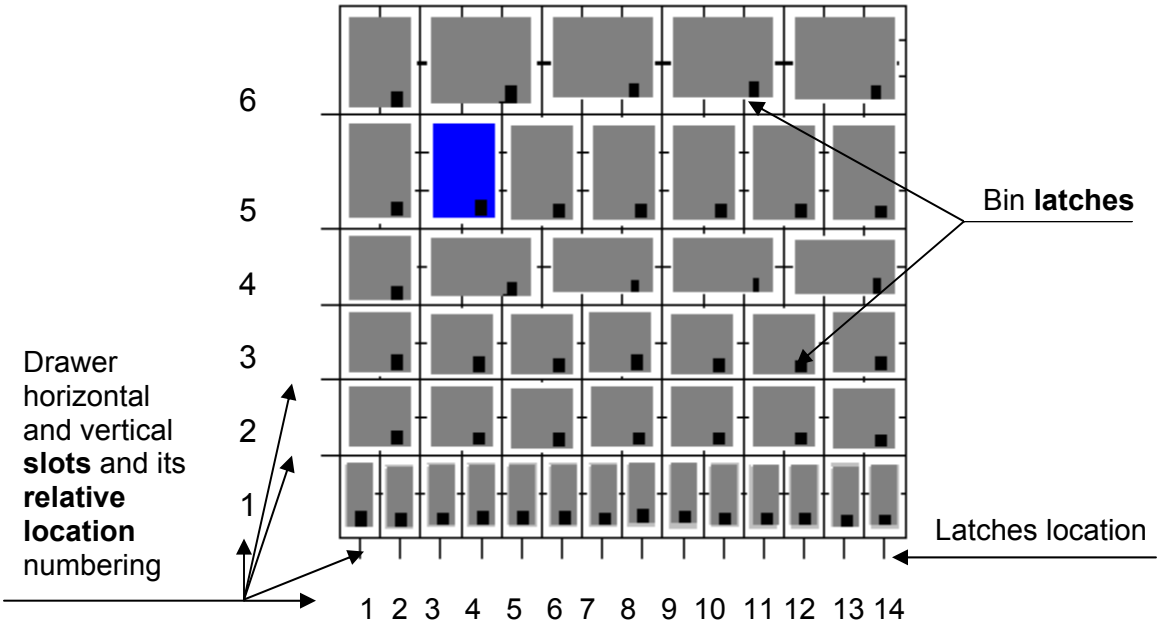
Drawer = **2** = Number of the **drawer** from top to bottom

Z = **5** = Location of **bin row** from front to back

X = **2** = Location of **bin column** from left to right

Note: Physical location is **only** used when defining special drawer configurations. Visual location is used by the system to identify bins.

BIN Code = Cabinet Name – Drawer – Z – X	➡	DEMO–02–05–02



For example,
Cabinet **DEMO**,
3rd Drawer from top to bottom located on the
4th Controller from top to bottom

5.4 Item

The "Items" module displays the different items stored in the cabinet's bins and enables handling them: adding / updating / copying / deleting.

The "Item Maintenance" screen contains the item's general details (ID, code, description and type) and the following tabs: **General**, **Supplier Information**, **Additional Fields**, **Stock Management**, **Location**, **Usage**, **Transaction, Links** and **Orders**.

5.4.1 Adding Items

1. To enter the module, select "Menu: Main → Items" in the system's main menu or click  <Items> button from the left shortcut menu.
2. Click the  <Add> button on the Menu bar.
3. Enter values for the mandatory and regular fields: Item Code, Item Description, Item Type, etc. in the screen's header and the fields in the "General" tab.
4. Click the  <Save> button.

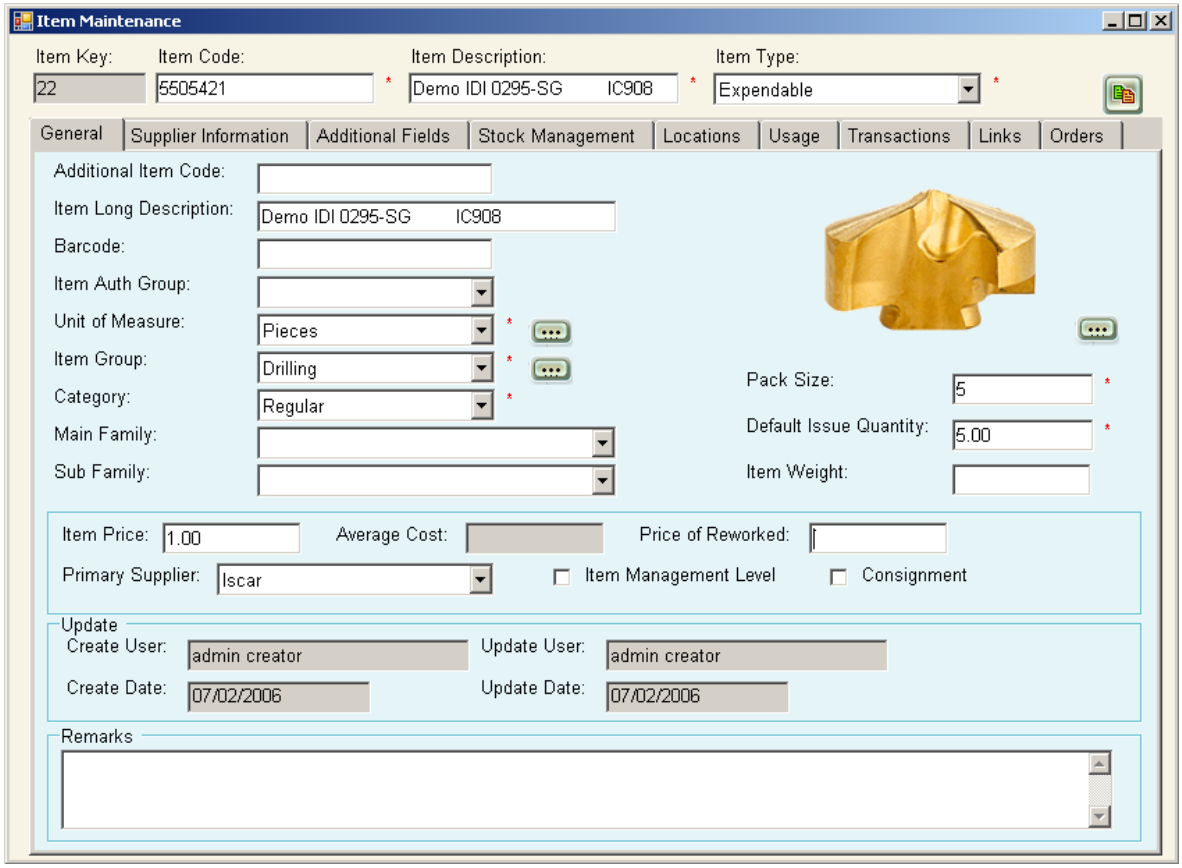
   At this point, you are able to enter the rest of the item's details in the screen's tabs:



Recommendation: To save time setting values for fields, you can set default values that will be automatically loaded each time you create a new item. For more information see Chapter B: Defaults List (section 5.6).

5.4.1.1 Tab: General

This tab contains general details regarding the item.



Fields description:

Item Code *: The catalogue number that is displayed also on the TOUCH module.

Item Description *: The item description that is displayed also on the TOUCH module.

Item Type *: Item type (Expendable, Durable, Reworkable, Kit and Key) that determines the functionality of the item. For more information see Chapter B: ITEM Life Cycle (section 5.4.4).

Additional item code: An additional catalogue number, which can be used in case two different codes are necessary (for example supplier's and customer's code). In System Option **#1011** you can determine whether this field will be displayed in the TOUCH module.

Item Long Description: Additional item description. In System Option **#1011** you can determine whether this field will be displayed in the TOUCH module.

Barcode: Item bar-code that makes it easier to find the items on the TOUCH module by scanning with the barcode reader.

If this field has no value and the user will use a barcode reader, the system will compare the read value to the Item Code and Item Description.

Notice that the barcode reader is usually configured to scan with a prefix that is also defined in System Option **1012**. The value here should be the same as it scanned, but without the prefix.

For more information, read Chapter C: Barcode Interface (section 12.3.3).

Item Authorization Group: The authorization group which is used to restrict the usage of the item. For more details see Chapter D: Item Authorizations Group (section 16.4).

Unit of Measure *: The unit in which the item is measured e.g. PCS=Pieces

Item Group *: The group to which the item belongs. This information is helpful for tracking an item in the system.

Category *: An additional classification of the item. You can edit its options in the list, as described in Chapter D: Item Category (section 16.2).

Main Family: An additional classification of the item. The options in this list cannot be edited.

Sub Family: An additional classification of the item. The options in this list cannot be edited. The list is filtered according to the selected Main Family.

Item Image: The item image, as it is also displayed on the TOUCH module. To change the image, click the  browse button and select an image file. This will copy the selected file into the folder as defined in system option **400** (Item Pictures path) and will rename the file using Item Code as a file name with extension as defined in system option **204** (Picture File Type).

Pack Size *: Indicates the number of items in this type of package.

Default Issue Quantity *: The default quantity for an issue of this item. When defining this item for bin, this value will be copied to the bin's "Default Issue Quantity" field.

Item Weight: The item weight for information.

Item Price: Indicates the default item price. When defining this item for a bin, this value will be copied to the bin's "Issue Price" field.

Average Cost: This field is calculated automatically by the received orders and cannot be edited manually. The value is influenced only by Receive transactions of Standard Orders. Every time an item is received into the system, it takes the received quantity and the value from "Unit Price" field from the order and calculates the average between the price in the order and the previous average cost.

The purpose of this field is to calculate the average cost of an item from all the purchases done for the item during the whole period of working with the system. The average cost later will be used for stock transaction values such as 'Return', 'Adjust Item', 'Transfer' and 'Count Bin' and for stock valuation reports.

Price of Reworked: The price of an item after rework/regrind process. If the bin is flagged with 'Reworked', then the value of an Issue transaction from that bin will be calculated with this price.

Primary Supplier: States the item's default supplier, who will be selected as the supplier in automatic orders.

Item Management Level: If checked, the automatic order process will be managed at the item level, i.e. there will be a Min and Max for the Item, taking into account the total quantity of this item in all bins.

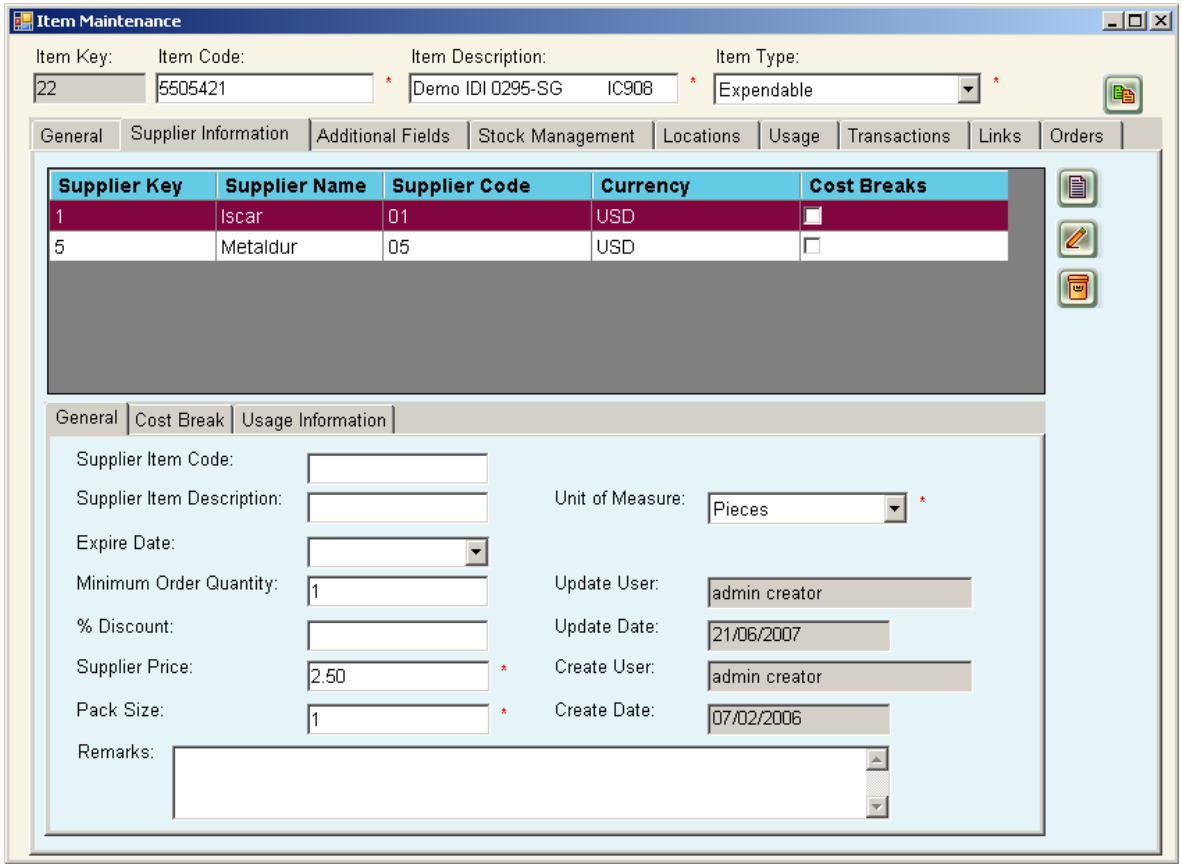
Consignment: If checked, the Consignment field for bins associated with this item will also be checked.

Create User, Create Date, Update User, Update Date:

Filled automatically by the system and is cannot be changed manually.

5.4.1.2 Tab: Supplier Information

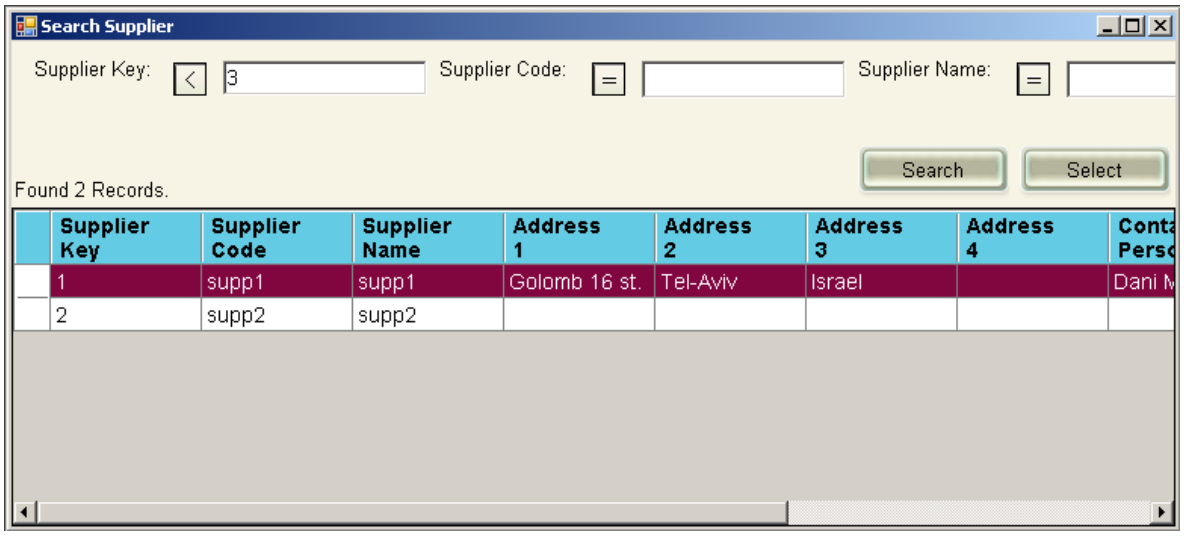
This tab is used to define the supplier of the selected item along with some additional data like pricing.



The screen's top section contains the item's general details. Its middle section contains a list of suppliers who are associated with this item and their details.

Adding a supplier for an item:

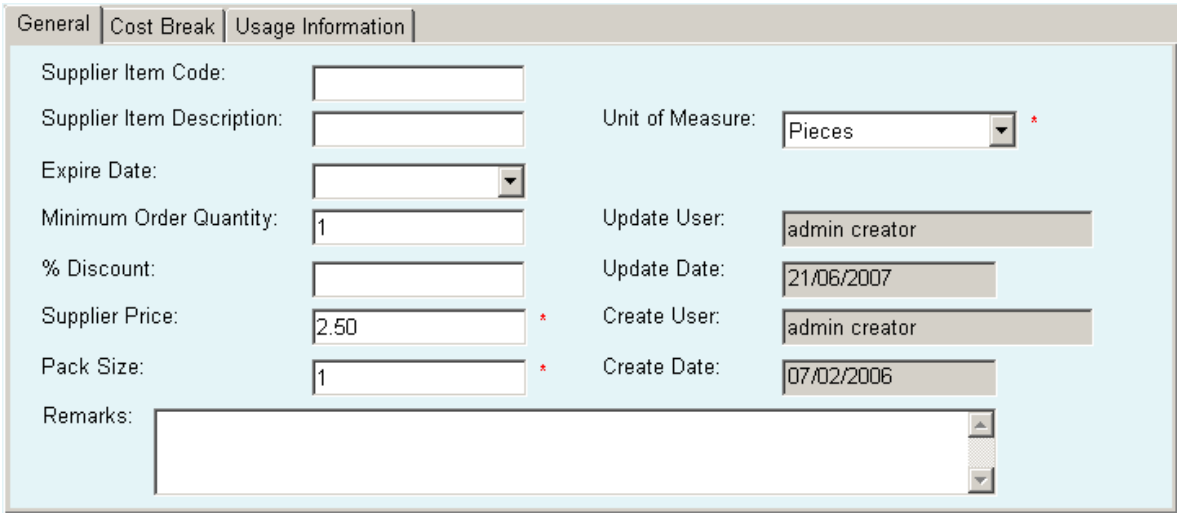
1. Click the  <Add> button.
2. Search the required supplier in the supplier's search screen, mark his record and click the <Select> button.



Once the supplier is selected, the following tabs will appear at the lower part of the screen:

Sub-Tab: General

This tab contains information for orders regarding the supplier of the item:



Supplier Item Code: The supplier's reference to the item.

Supplier Item Description: The item's description used by the supplier.

Expire date: The item's price expiration date (for this specific supplier).

Minimum Order Quantity: Minimum order quantity from this supplier.

% Discount: The supplier's discount for this item.

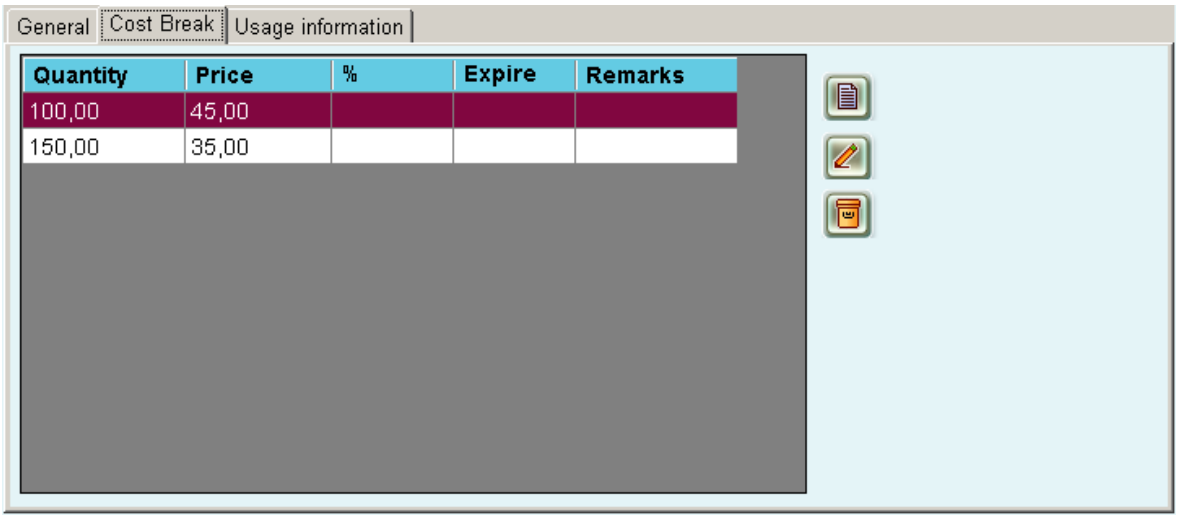
Supplier Price *: The supplier's price for this item. When creating an order, by default this price will be copied into the "Unit Price" field in the order.

Pack Size *: The size of the package used by the supplier for this item. In an automatic order the ordered quantity will be rounded up to this value.

Unit of Measure *: Indicates the supplier's base order unit. The system does not deal with unit of measure conversions.

Update User, Update Date, Create User, Create Date:
Filled automatically by the system and are not changeable manually.

Sub-Tab: Cost Break



This tab contains a grid where we can define special prices and discounts of the supplier for different order sizes.

To define a new record: click the <Add> button; fill-in the fields in the open window; and click the <Save> button. In order to update (or to delete) a record, mark the required record in the grid and click the <Update> button (or the <Delete> button).

Fields description:

Quantity *: If the ordered quantity is greater or equal to this quantity, the special price or discount will apply.

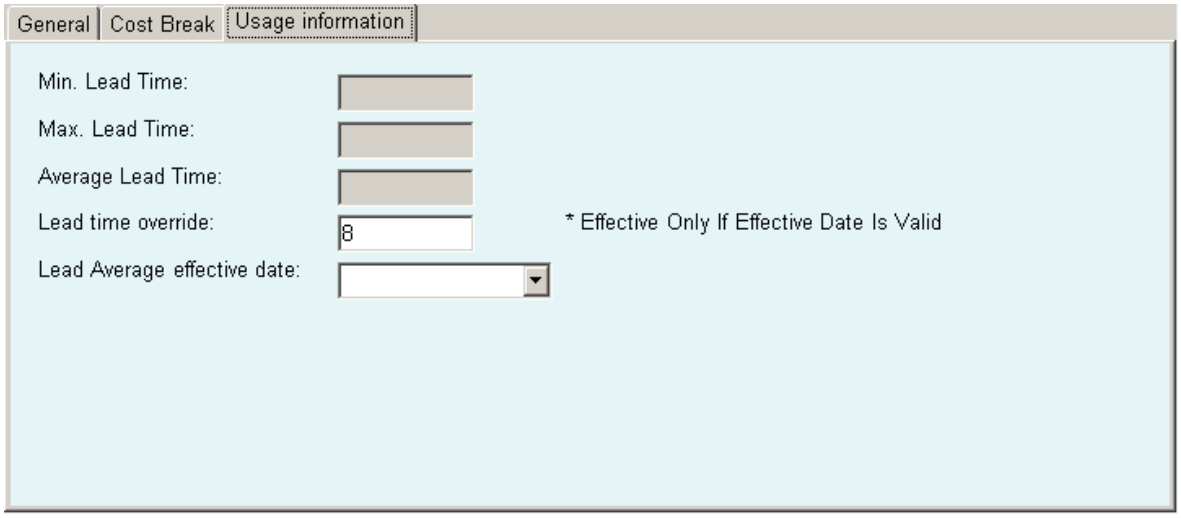
Price: Indicates the price for the specified quantity.

% Discount: Indicates the discount for the specified quantity.

Expire date *: The date the pricing for this quantity expires.

Remarks: General remarks for this quantity pricing.

Sub-Tab: Usage Information



This tab contains statistical information of the item's supplier record. This information is calculated at each month end process and is used in the ordering process.

Fields description:

Min. Lead Time: The supplier's minimum lead time, calculated at the end of each month.

Max. Lead Time: The supplier's maximum lead time, calculated at the end of each month.

Average Lead Time: The supplier's average lead time, calculated at the end of each month.

Lead Time Override: The lead time can be modified to the value specified in this field.

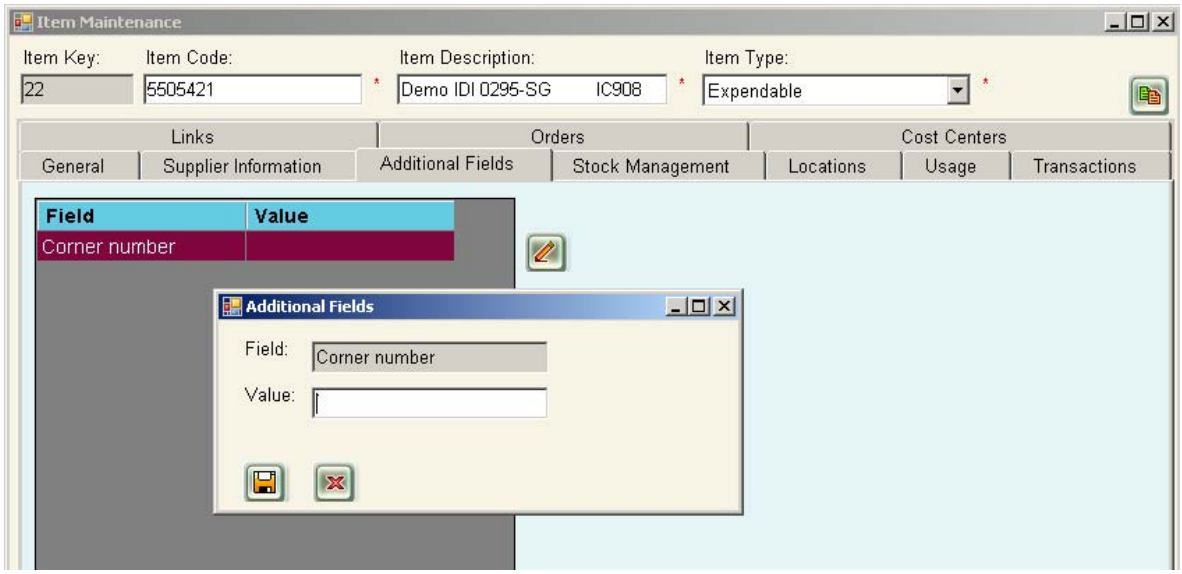
Lead Average Effective Date: The date until which the lead time override mentioned above is effective.

Note: To see specific supplier information, mark the required supplier and click the <Update> button or double-click the record. As a result, the above mentioned tabs (General, Cost Break and Usage Information) will appear.

5.4.1.3 Tab: Additional Fields

This tab displays the additional fields (Numeric, Text, Boolean and Date), set for the Item entity in the "Additional Fields" screen.
This screen only allows you to edit the fields that were already added. For instructions how to add more fields to the entity, see Chapter B: Additional Fields (section 5.5).

To update values for each of these fields, click the <Update> button, set the required value and click the <Save> button.



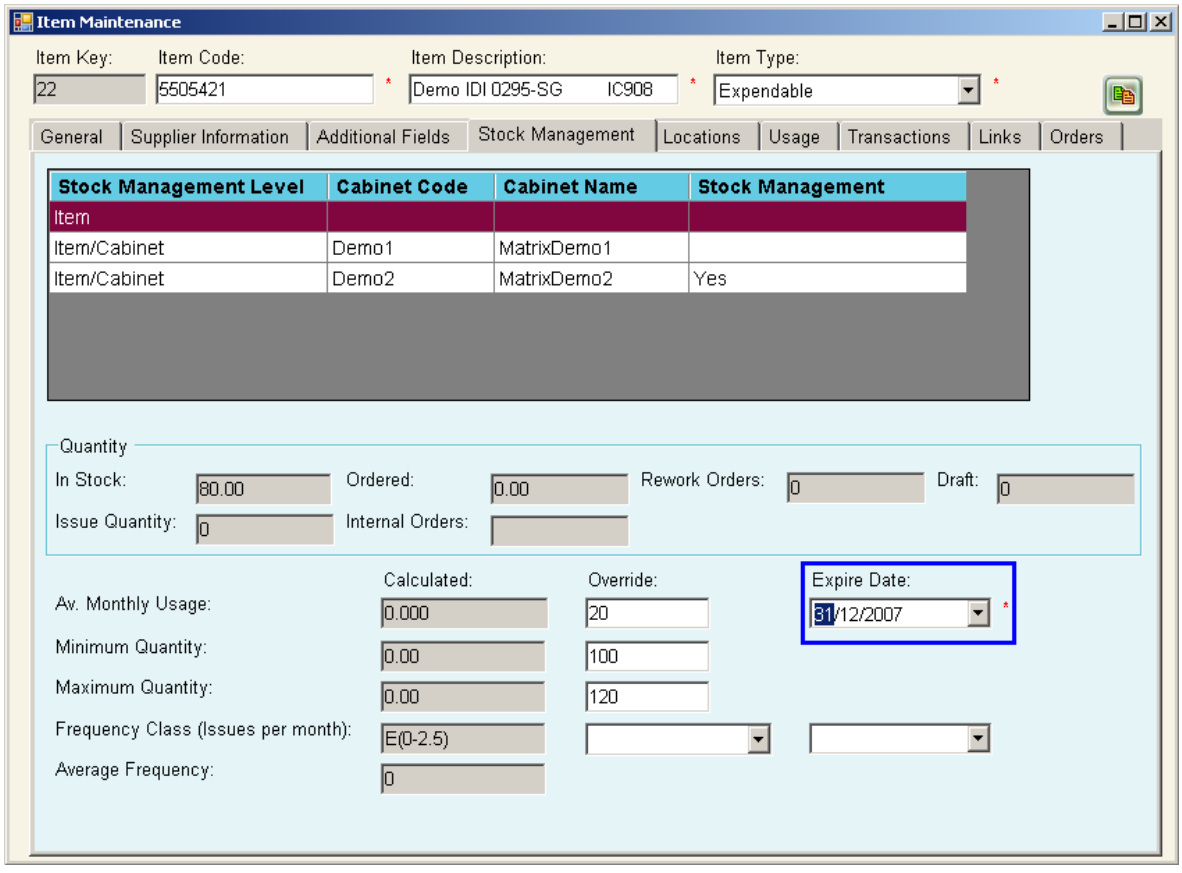
5.4.1.4 Tab: Stock Management

This tab displays information required for the stock ordering process. The grid at the page's top section contains the different available Stock Management Levels: Item level – total quantity of this item in all cabinets and/or Item/Cabinet level – total quantity of this item in a particular cabinet.

In order to purchase stock, the minimum and maximum quantities, and the monthly issuing frequency, can be manually set for each cabinet to which the item is associated.

When selecting the required level (by marking its row in the grid), the fields at the lower part of the page display its details, allowing the user to update some of them.

Note: The expiration date is obligatory if you change one of the override fields.



Field Descriptions:

Note: All of the display values for the following fields depend on the selected Stock Management Level – **Item** level or **Item/Cabinet** level.

In Stock: The current quantity in stock..

Ordered: The Quantity in **Open orders** for the selected stock management level (quantity in the cabinet or the entire stock).

Rework Orders: The Quantity in **Rework orders** for the selected management level (quantity in the cabinet or the entire stock).

Draft: The Quantity in **Pending orders** (orders which haven't been approved yet) for the selected management level.

Issued Quantity: The issued quantity for the selected stock management level. If the item type is 'Durable' it supplies information about the number of items issued that should be returned to stock.

Internal Order: The quantity of items in an Internal Order.

Average Usage: The average issue transaction quantity per month for the selected stock management level.

Minimum Quantity: Indicates the item's minimum quantity. For the selected management level: If the quantity in stock is less than this quantity, a new order will be initiated to renew the stock to its maximal level.

Maximum Quantity: Indicates the item's maximum quantity. For the selected management level: If the quantity in stock is less than the minimum quantity, a new order will be initiated to replenish the stock to its maximal level.

Frequency Class (Issue transactions per month): The average frequencies are classified to groups: Group A – a most active item (measured in number of issue transactions per month); and Group B – a less active item.

Average Frequency: The average number of orders per month.

The column "Calculated" displays automatically calculated values as a result of running "Monthly Usage Process".

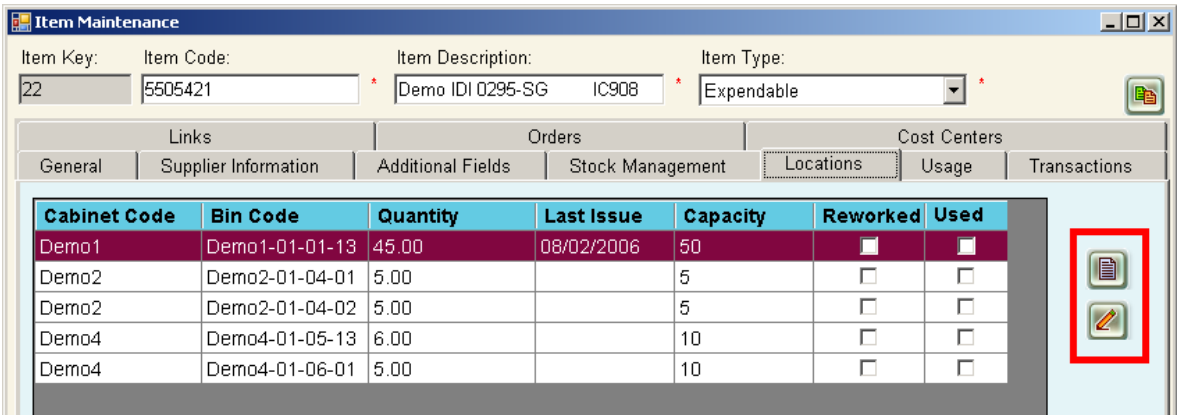
The column "Override" enables overriding the automatically calculated values.

If the "Override" column has input and the "Effective Until" date has not expired, the Automatic Purchase order process will create orders according to the input. Otherwise, it will create the orders according to the data in the "Calculated" column.

For more information see Chapter D: Monthly Process (section 21.1) and Chapter D: Automatic PO Process (section 21.2).

After updating the required fields, click the <Save> button.

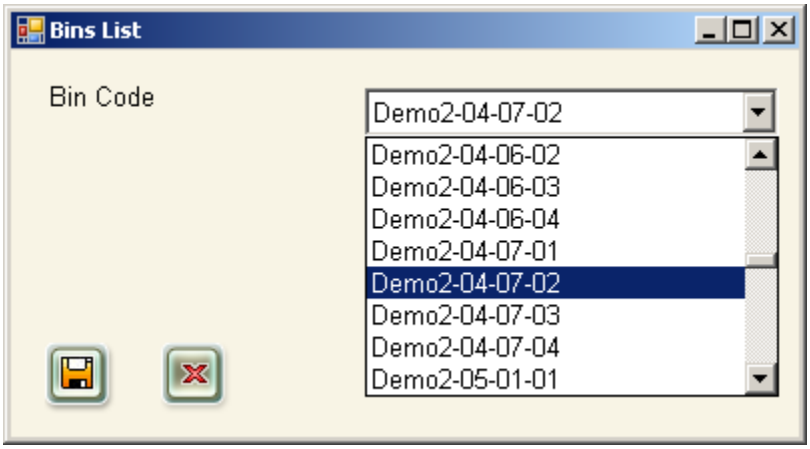
5.4.1.5 Tab: Locations



This tab displays a list of bins in all cabinets where the current item is stored.
You can update bin data and link the item to additional bins.

To link an item to additional bin:

1. Click the <Add> button on the right side of the grid. This will display the list of bins that are not linked to an item.



2. Select a bin from the list and click the <Save> button. This bin will be added to the list in the grid. Continue to update data of the bin like Capacity, Items in Bin etc.

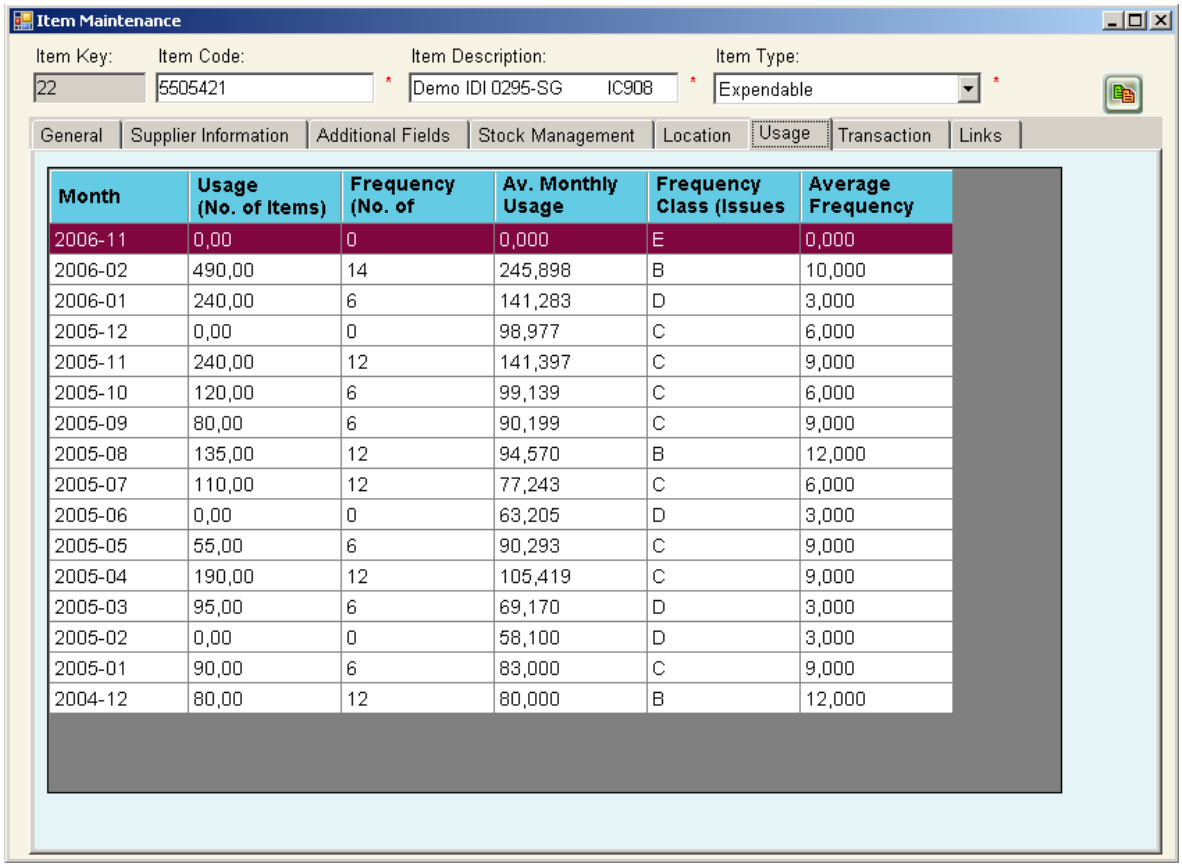
To update data of the bin:

By marking a certain record in the grid and clicking the <Update> button, the "Bin Maintenance" screen will appear, displaying the details of the selected bin and allowing the updating of the bin.

For further details regarding updating a bin, see Chapter B: Bin (section 5.3).

5.4.1.6 Tab: Usage

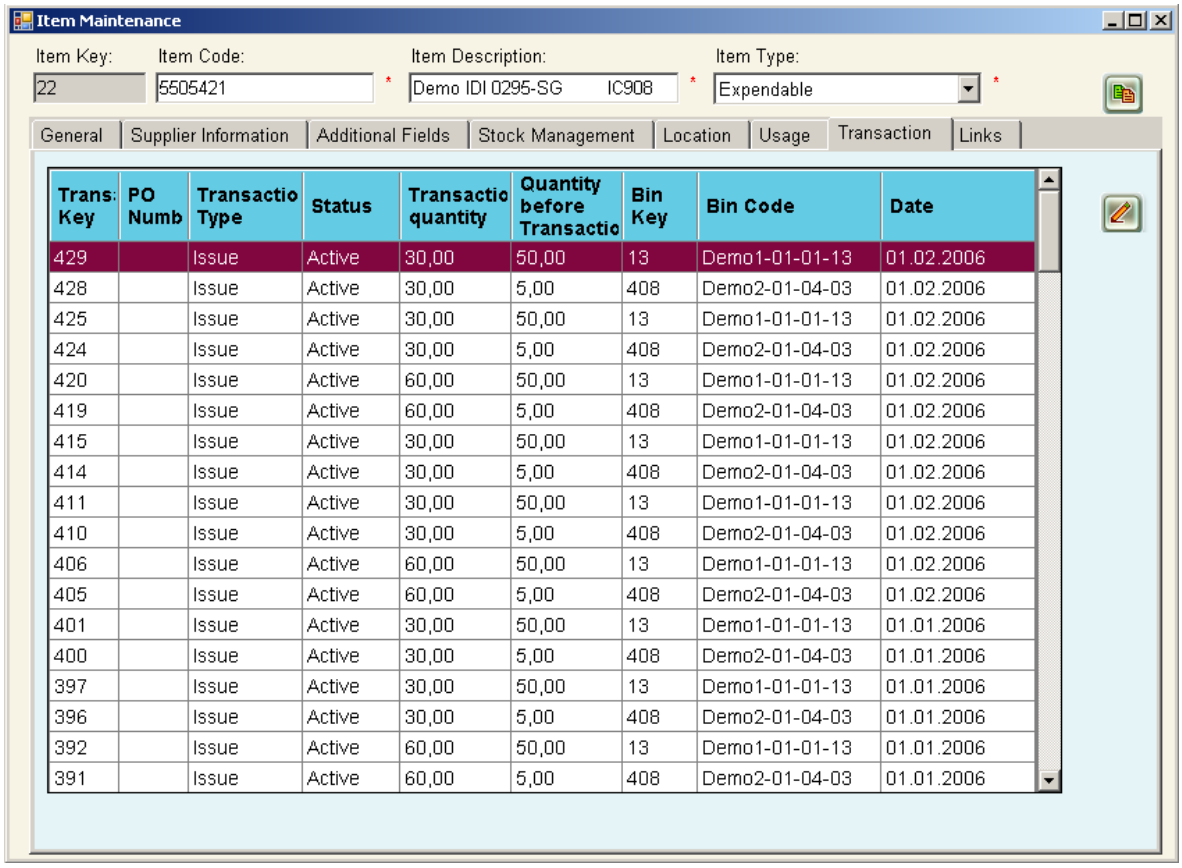
This tab displays the usage data by month related to the Item. The usage screen gives a good indication for the activity of the Item. User can track in this tab the Usage, Average Usage and Frequency or issues for the Item per month.



Month	Usage (No. of Items)	Frequency (No. of	Av. Monthly Usage	Frequency Class (Issues	Average Frequency
2006-11	0,00	0	0,000	E	0,000
2006-02	490,00	14	245,898	B	10,000
2006-01	240,00	6	141,283	D	3,000
2005-12	0,00	0	98,977	C	6,000
2005-11	240,00	12	141,397	C	9,000
2005-10	120,00	6	99,139	C	6,000
2005-09	80,00	6	90,199	C	9,000
2005-08	135,00	12	94,570	B	12,000
2005-07	110,00	12	77,243	C	6,000
2005-06	0,00	0	63,205	D	3,000
2005-05	55,00	6	90,293	C	9,000
2005-04	190,00	12	105,419	C	9,000
2005-03	95,00	6	69,170	D	3,000
2005-02	0,00	0	58,100	D	3,000
2005-01	90,00	6	83,000	C	9,000
2004-12	80,00	12	80,000	B	12,000

5.4.1.7 Tab: Transaction

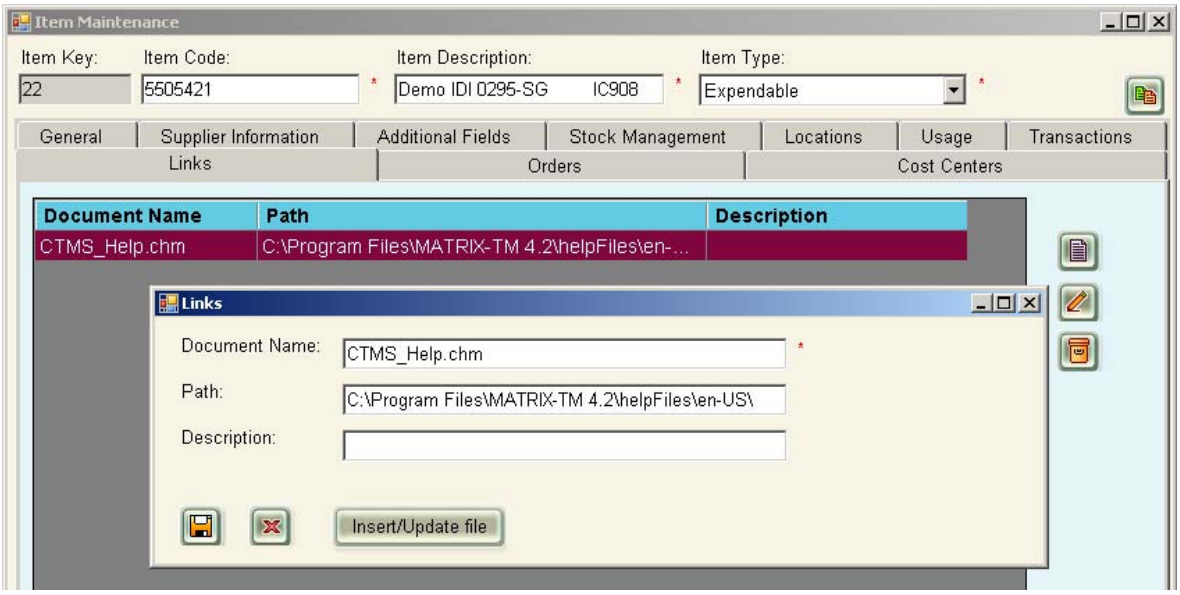
This tab displays all the transactions for the Item.



Trans: Key	PO Numb	Transactio Type	Status	Transactio quantity	Quantity before Transactio	Bin Key	Bin Code	Date
429		Issue	Active	30,00	50,00	13	Demo1-01-01-13	01.02.2006
428		Issue	Active	30,00	5,00	408	Demo2-01-04-03	01.02.2006
425		Issue	Active	30,00	50,00	13	Demo1-01-01-13	01.02.2006
424		Issue	Active	30,00	5,00	408	Demo2-01-04-03	01.02.2006
420		Issue	Active	60,00	50,00	13	Demo1-01-01-13	01.02.2006
419		Issue	Active	60,00	5,00	408	Demo2-01-04-03	01.02.2006
415		Issue	Active	30,00	50,00	13	Demo1-01-01-13	01.02.2006
414		Issue	Active	30,00	5,00	408	Demo2-01-04-03	01.02.2006
411		Issue	Active	30,00	50,00	13	Demo1-01-01-13	01.02.2006
410		Issue	Active	30,00	5,00	408	Demo2-01-04-03	01.02.2006
406		Issue	Active	60,00	50,00	13	Demo1-01-01-13	01.02.2006
405		Issue	Active	60,00	5,00	408	Demo2-01-04-03	01.02.2006
401		Issue	Active	30,00	50,00	13	Demo1-01-01-13	01.01.2006
400		Issue	Active	30,00	5,00	408	Demo2-01-04-03	01.01.2006
397		Issue	Active	30,00	50,00	13	Demo1-01-01-13	01.01.2006
396		Issue	Active	30,00	5,00	408	Demo2-01-04-03	01.01.2006
392		Issue	Active	60,00	50,00	13	Demo1-01-01-13	01.01.2006
391		Issue	Active	60,00	5,00	408	Demo2-01-04-03	01.01.2006

5.4.1.8 Tab: Links

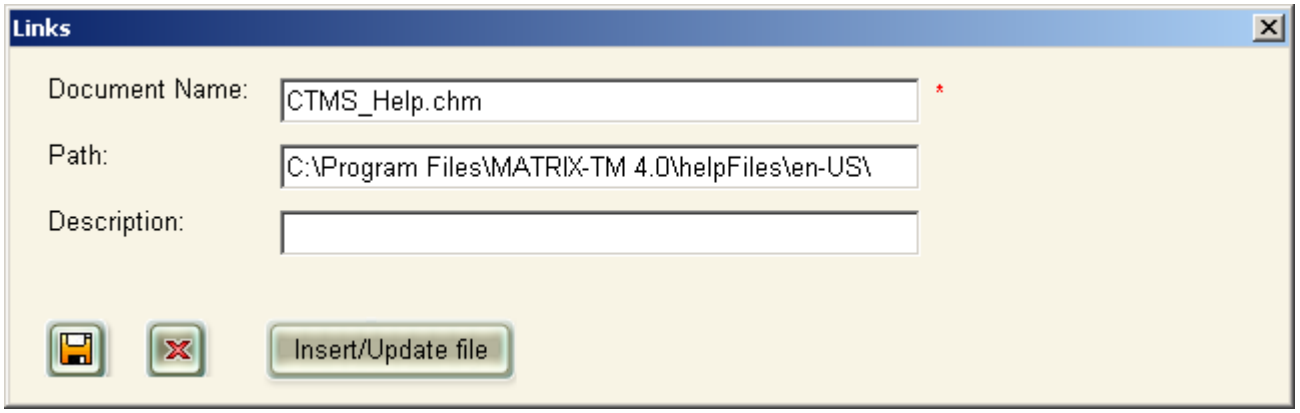
This tab displays a list of links associated with the item.



Adding / Updating Links:

Each record is built of a file name and its full path and description.

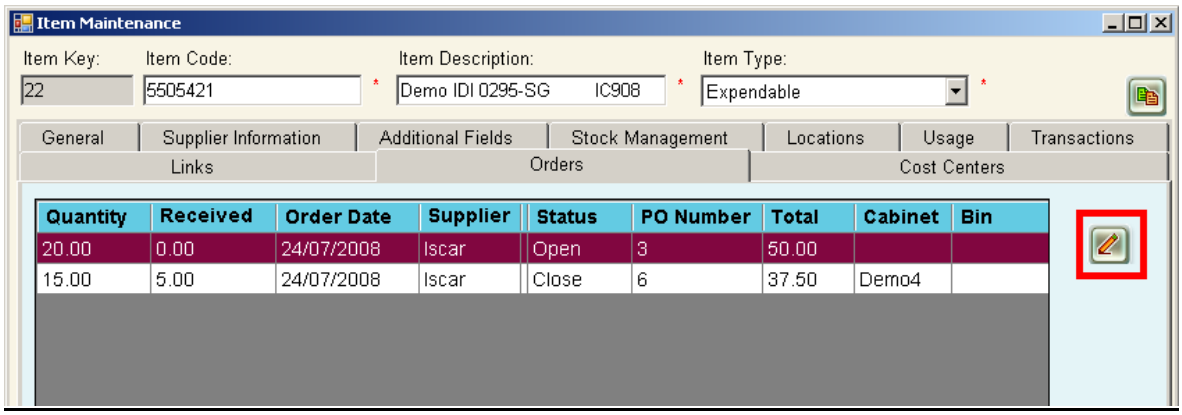
1. Click the <Add> or <Update> button (to update an existing record first mark it in the grid).
2. Enter the required values in the "Links" window (below) manually or click the <Insert/Update file> button to select the file from the system.
3. Save the record by clicking the <Save> button.



5.4.1.9 Tab: Orders

This tab displays all the order lines that were created for this item.

In order to see the order that contains a specific order line, select the order line record and click the <Update> button.



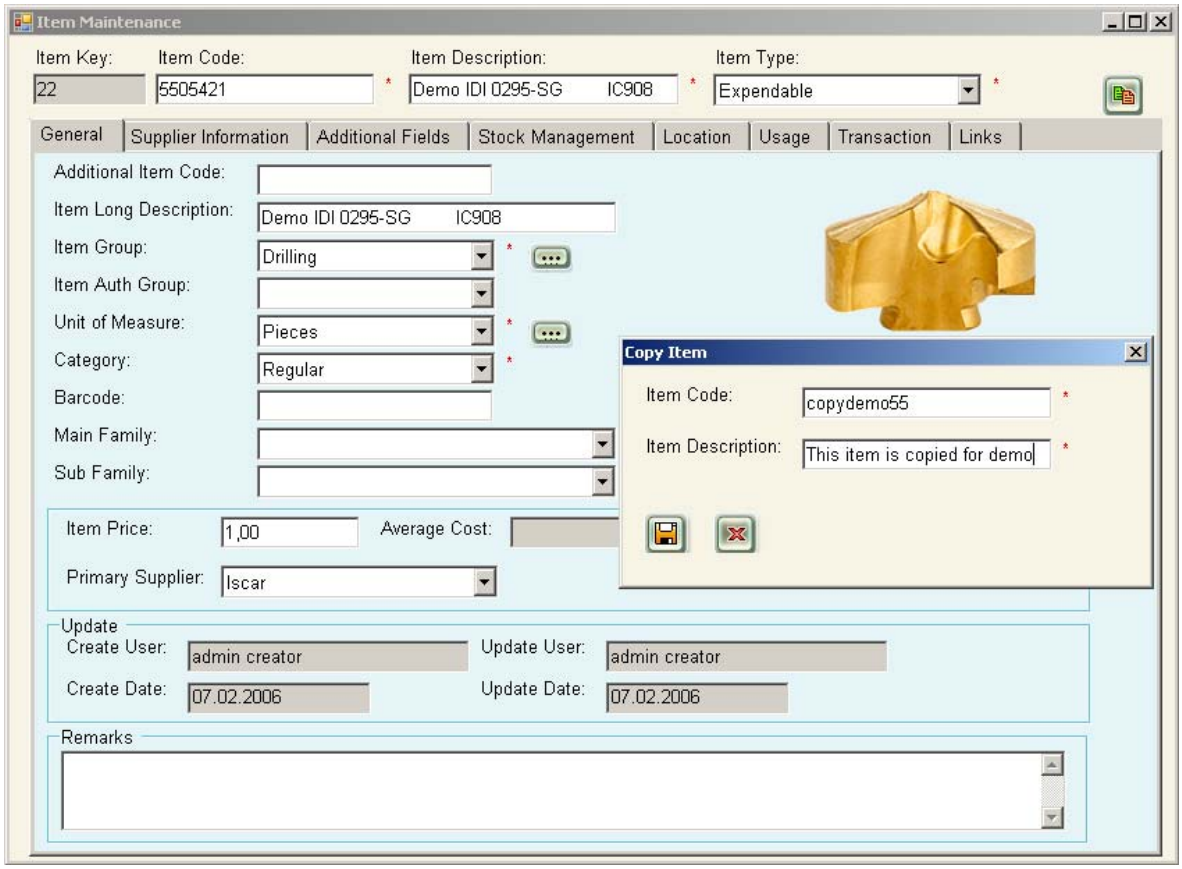
5.4.2 Copying an Item

By copying an item, the user can add a new item to the system, identical to the copied item.

The copied information is the values of the fields in the "General" tab, with the exception of the item code, description (which will be set in the "Copy Item" window) and supplier, which will not be copied.

To copy an item:

1. Click the <Copy Item> button.



2. Enter item code and description.

   Save the new item by clicking the <Save> button. Once the new item is created and its details copied, the user is notified that the copying operation has successfully ended.

5.4.3 Kit Management

MATRIX-TM lets you manage Kits. A kit is created from a list of items, along with the quantity of each such item.

In order to define a kit, you need to open an item of type “Kit”. Once a Kit item is opened, a new tab "Kit Items" is displayed. In this tab it is possible to define all the items which make up the kit. These items are defined along with their respective quantities.

When a Kit item is being issued, there are two possibilities:

- If the kit item is stored in a bin as one assembly, it is issued like any other item from a bin.
- If the kit item is comprised of items stored in different bins, the system will issue all the defined items continuously one after the other.

5.4.3.1 Defining a Kit Item

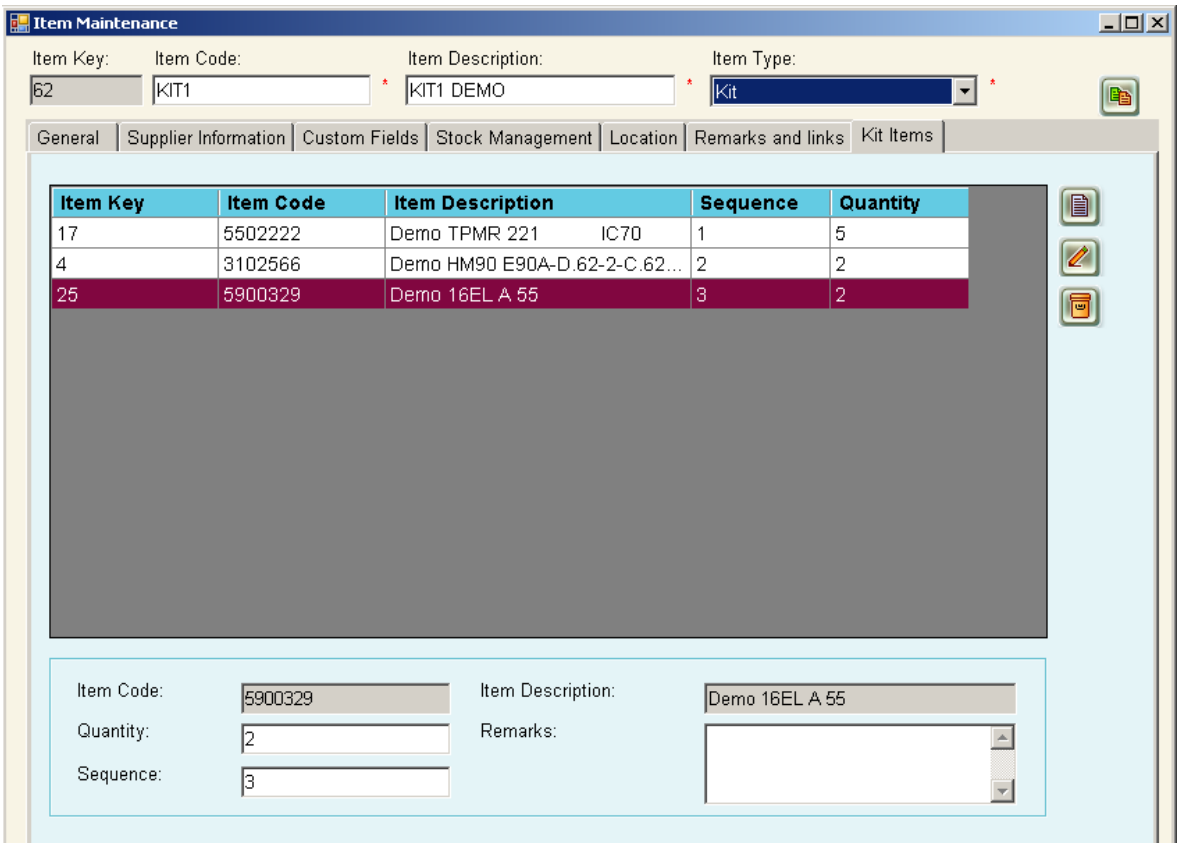
1. Go to: "Menu: Main → Item"
2. Open an item and choose Item Type Kit. This will open a new tab called "Kit Items". In this TAB you can add the individual items which make up the kit. For each individual item in the Kit you can add the following data:

   Quantity: How many of each individual item per kit unit.

   Sequence : In what order to show the lines.

   Remarks: Any text which is related to this item.

For reading more information about kits, see Chapter B: Issue Kit (section 8.5.1) and Chapter C: Issue a Kit (section 13.1.1).



5.4.4 ITEM Life Cycle

The stock operations available for an item depend on the **Item Type**, **Bin Type** and on **System Options 904 and 905**.

The system uses:

Four types of Items: Expendable, Durable, Reworkable and Kit.

Three types of Bins (definitions on the "Bin Maintenance" screen): **Used** (signed with 'Used Item'), **Reworked** (signed with 'Reworked') and **New** (no sign).

Each of system options 904 and 905 has 2 available values – YES or NO.

Expendable item: Can be issued only once, must be located in a new bin and without option to return. This item type is not influenced by system options 904 and 905.

Durable / Kit: It is a multiple use item that can be located in any type of bin and can be returned to the cabinet; therefore it can be issued many times. This item type is influenced by the system option 905.

Option 905 - Used Durable/Kit Bin good as New

If 905 = NO, Receive Durable/Kit new item to New bins.

If 905 = YES, Receive and Return Durable/Kit new item to New or Used bins.

E.g. If you wish to Receive and Return New & Used Durable/Kit items in the one bin, select YES. If you wish to separate New & Used Durable/Kit items into different bins, select NO and sign 'Used Item' for bins.

Reworkable: It is a multiple use item that can be located in any type of bin, and can be returned to the cabinet. It can be issued many times, but only after rework process. This item type is influenced by the system option 904.

Option 904 - Reworked Bin good as New

If 904 = NO, Receive Reworkable new item only to New bins and Reworkable reworked item only to Reworked bins.

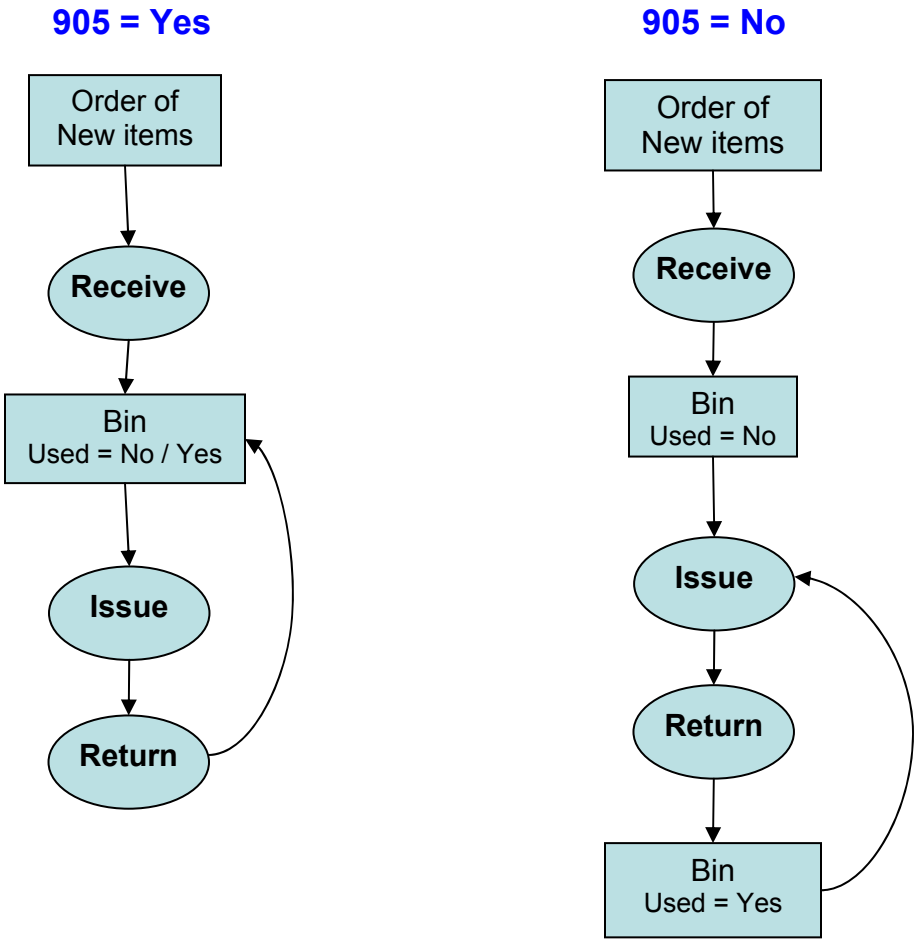
If 904 = YES, Receive Reworkable item (new or reworked item) to New or Reworked bins.

E.g. If you wish to receive New & Reworked items in the one bin, select YES. If you wish to separate New & Reworked items into different bins, select NO and sign 'Reworked' for bins.

The following charts show the life of cycle of the different item types and settings for system options 904 and 905.

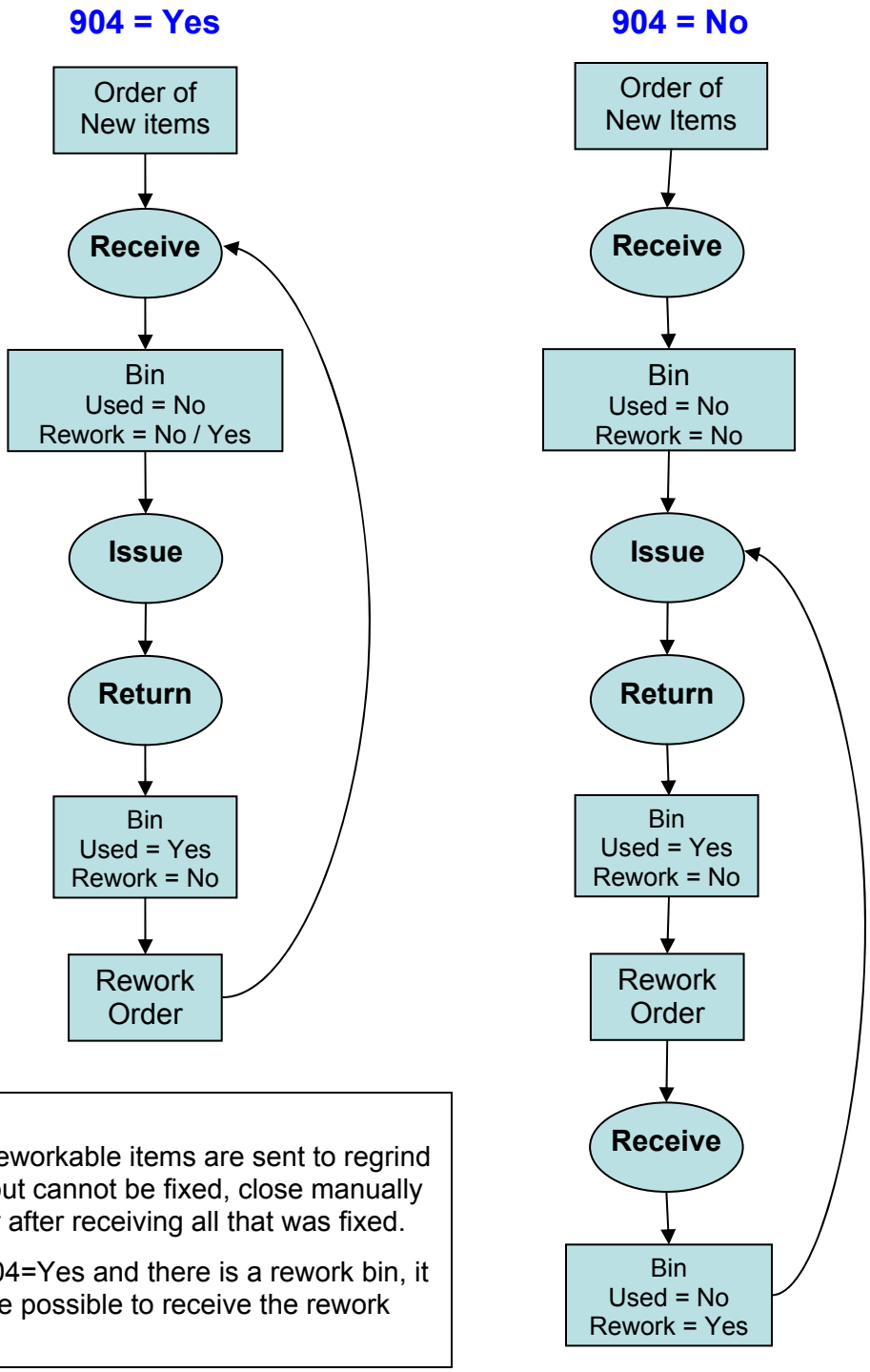
Please read more information about the influence of system options 904 and 905 in Chapter B: Stock Management Levels (section 6)

Life cycle of DURABLE / KIT Items



Note:
When 905=Yes and there is a used bin, it may still be possible to return to it.

Life cycle of REWORKABLE Item



Notes:

- When Reworkable items are sent to regrind supplier, but cannot be fixed, close manually their order after receiving all that was fixed.
- When 904=Yes and there is a rework bin, it may still be possible to receive the rework order to it.

5.4.5 Add Images to Items

The system supports displaying the item's image in the Manage and Touch modules.
To use this feature, the folder defined in System Option **400** (Item Pictures path) must contain all the files with the extension as defined in System Option **204** (Picture File Type).
When opening an item in Manage or Touch, the system will try to find the compatible item picture and to display it. If no matching file will be found, the Group Image of that item or 'No Image' will be displayed.

There are three ways to add images to the items:

Manual file renames and copies:

1. Rename the image file using Item Code value and extension such as defined in the System Option **204** (jpg / gif / bmp).
   For example, the image file name of item with Item code = 1030606 can be: 1030606.gif
2. Put the image file in the folder defined in the System Option **400**.

Files selections by Manage interface:

1. Open the 'Item Maintenance' screen of the item that you wish to set the image.
2. Click the  browse button and select image file.

This will automatically copy the selected file into the folder as defined in System Option **400** and will rename the file using Item Code as a file name with extension as defined in System Option **204**.

Massive transfer of picture files:

If you have a folder with a lot of item image files that are named by Item Code or by Additional Item Code or by Supplier Code, you can transfer them together into the folder defined in System Option **400**.
For more details read Chapter E: Utilities (section 25.11).

Recommendation: Locate the image files in one folder shared to all the Matrix users and set respectively the system option **400** (for example, \\pcname\Matrix\Images). This will prevent unnecessary copies of files and maintenance for each folder separately.

5.4.6 Key Management

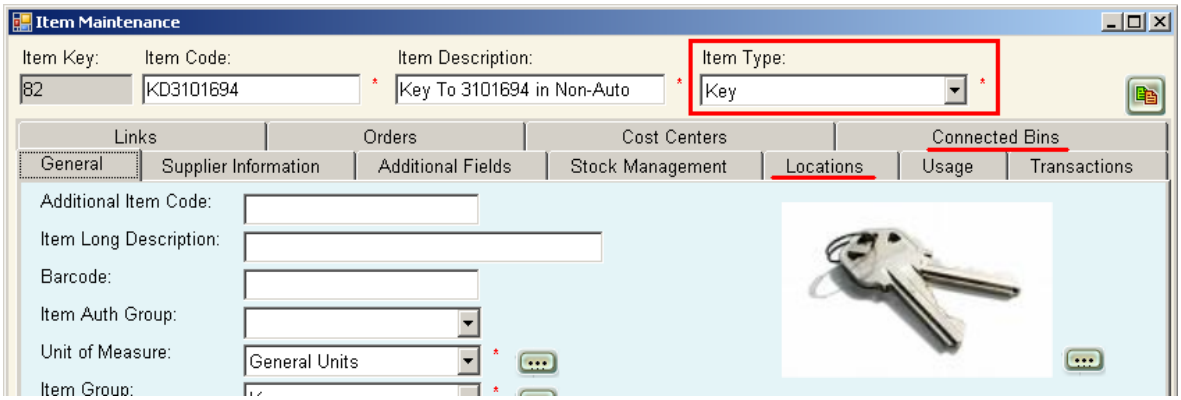
MATRIX-TM lets you manage Keys. Keys are stored in MATRIX cabinet and external lockers (defined as bins of a Non-Automatic cabinet) connected to the key.

'***Key Connected***' – when issuing an item located in an external cabinet or locker, the MATRIX cabinet will actually issue the key for the locker, and create separate transactions: one for the key and one for the item.

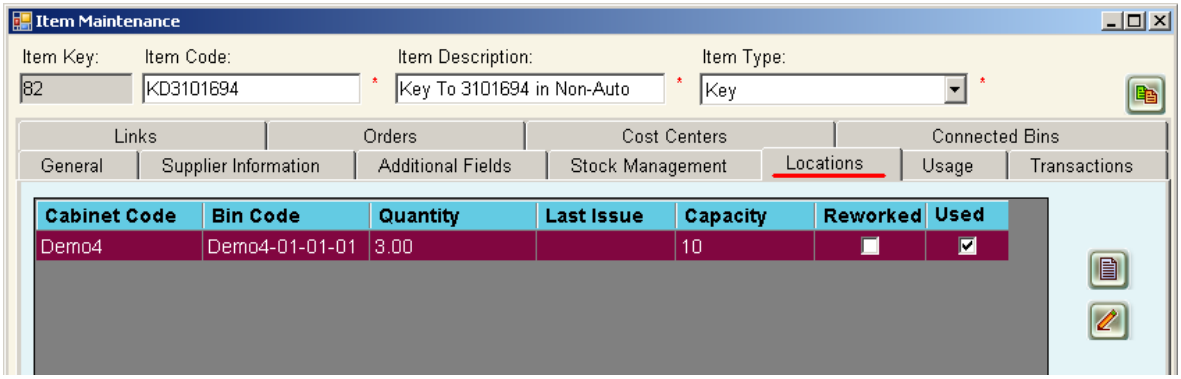
This is a very efficient and economical solution for large items management.

5.4.6.1 Defining a Key Item

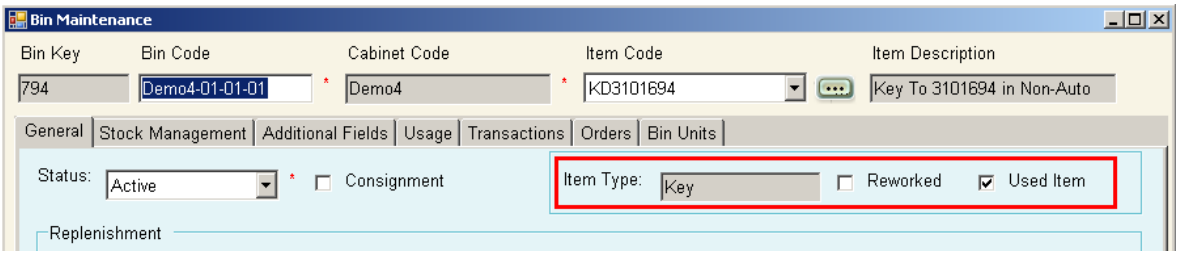
1. Go to: "Menu: Main → Item".
2. Create a new item, choose 'Key' for 'Item Type' field and save. This will create all standard tabs and an additional tab called "Connected Bins".



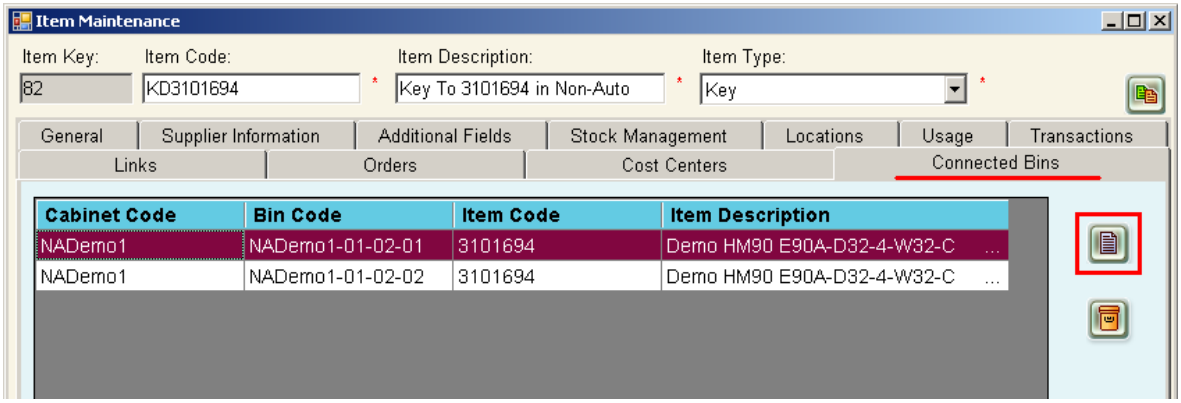
3. Locate the key in **MATRIX** cabinet' bin/s by the "Locations" tab or by opening the "Search Bins" screen.



4. Open the "Bin Maintenance" screen of the bin in which you have just located the key and mark the "Used Item" field. This is required in order to enable return of the keys to the cabinet.

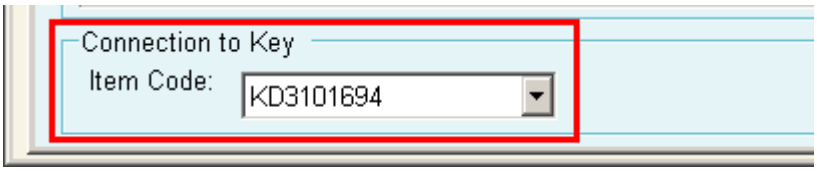


5. Open the "Item Maintenance" screen of the key and switch to the tab "Connected Bins". In this TAB you can add the bins which will be opened by this key.



6. Click the  <Add> button that is on the right side of the grid to connect bin to key. The opened screen "Search Bin" will display all the bins in **Non-Automatic cabinets** that were not connected to any key yet.

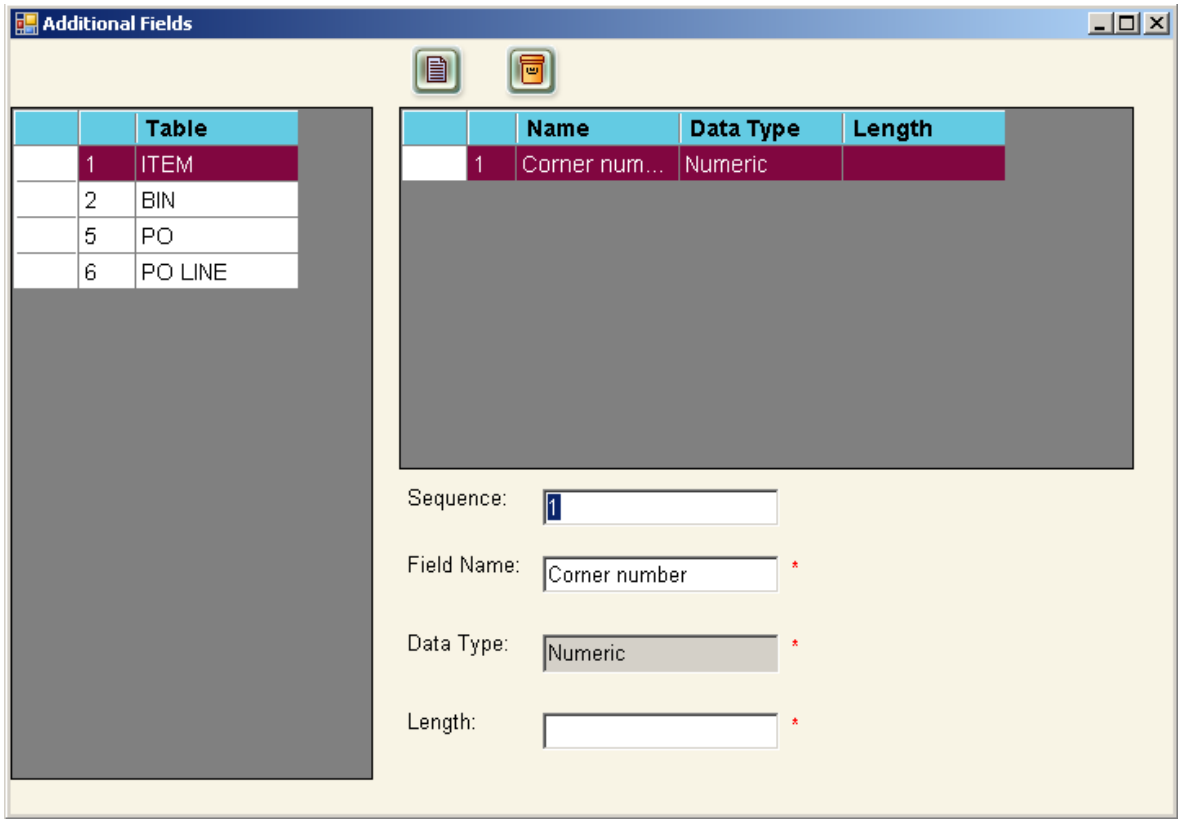
7. Select bin to connect and click the <Select> button. You can also make multiple bins select by holding CTRL key and marking the records. These bins will be added to the "Connected Bins" tab.
8. Open the "Bin Maintenance" screen of the bin which you have just connected to the key and see on the bottom part of the "General" tab that this bin has now the definition of key that will open this bin in the locker.
   Also instead of following steps 5-7, you can open directly this screen and define the key to which this bin will be connected.



Manage does not support working with keys when making transactions. Transactions with keys are supported only in the Touch module:
For issuing the item from locker using key, please follow Chapter C: Issue an Item from Locker (section 13.1.2).
For using key management in other modules in Touch, please follow Chapter C: Working with Key to Lockers (section 13.9).

5.5 Additional Fields

Additional Fields are fields that are specifically defined by the user for each of the following entities: **ITEM**, **BIN**, **Purchase Order** and **Purchase Order LINE**.
This means that you can add new customized fields for the entities of the system, such as color of item, etc.... You will be able to maintain and view those fields later.
To operate this screen, select "Menu: Administrator → Additional Fields". The following screen will then be displayed:



To define an additional field:

1. In the left "Table" grid, mark the entity for which you need to add the new field and click the <New> button.
2. Enter the field's name
3. Set the new field's type: Numeric, Text, Boolean (yes/no) or Date.
4. Set the field's length (this value should not be set for Boolean or Date fields)

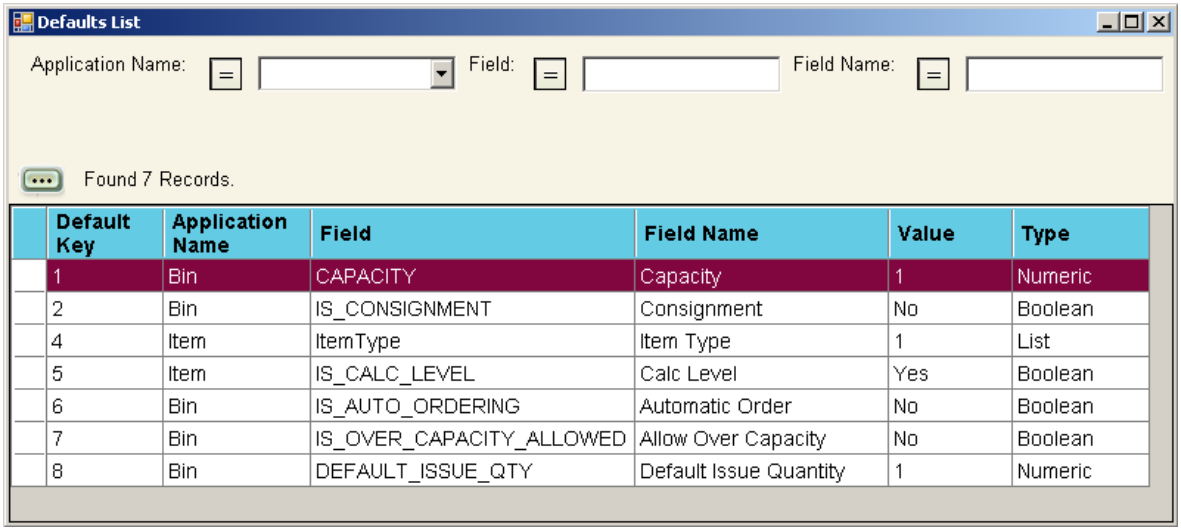
The Additional Fields defined in this screen will appear in the "Additional Fields" tab in the Update screens of each of the abovementioned entities (The purchase order's details' additional fields are displayed in its Update screen [in the "Additional Fields" tab, located within the "Details" tab]).

5.6 Defaults List

This feature enables to define default value for some of the fields on the maintenance screen of Bin and Item, When creating new item/bin these defaults would be used. This helps initially to create records with appropriate parameters instead of setting them manually one by one, saving user a lot of time.

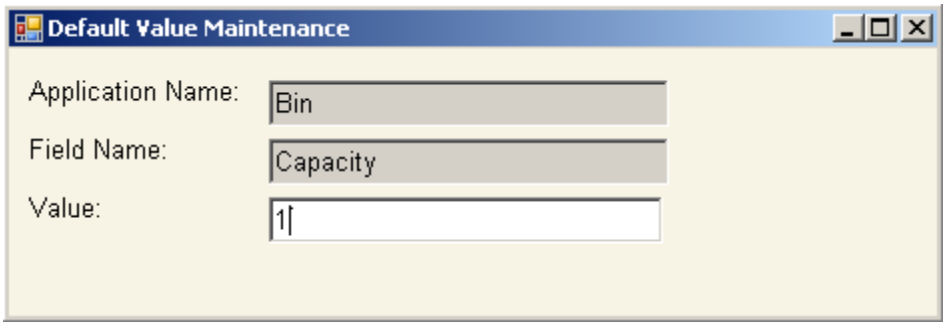
To change default:

1. Open "Menu: Administrator → Defaults List".
   The following screen will then be displayed (this screen presents the recommended default values):



Default Key	Application Name	Field	Field Name	Value	Type
1	Bin	CAPACITY	Capacity	1	Numeric
2	Bin	IS_CONSIGNMENT	Consignment	No	Boolean
4	Item	ItemType	Item Type	1	List
5	Item	IS_CALC_LEVEL	Calc Level	Yes	Boolean
6	Bin	IS_AUTO_ORDERING	Automatic Order	No	Boolean
7	Bin	IS_OVER_CAPACITY_ALLOWED	Allow Over Capacity	No	Boolean
8	Bin	DEFAULT_ISSUE_QTY	Default Issue Quantity	1	Numeric

2. Select field and open for update to change its default, for example 'Capacity' field for Bin application.



3. Change, for example, the default value to 10 and save.
4. Create new bin manually or build drawer for some cabinet. The created bin/bins will use now the new value for the field.

6 Stock Management Levels

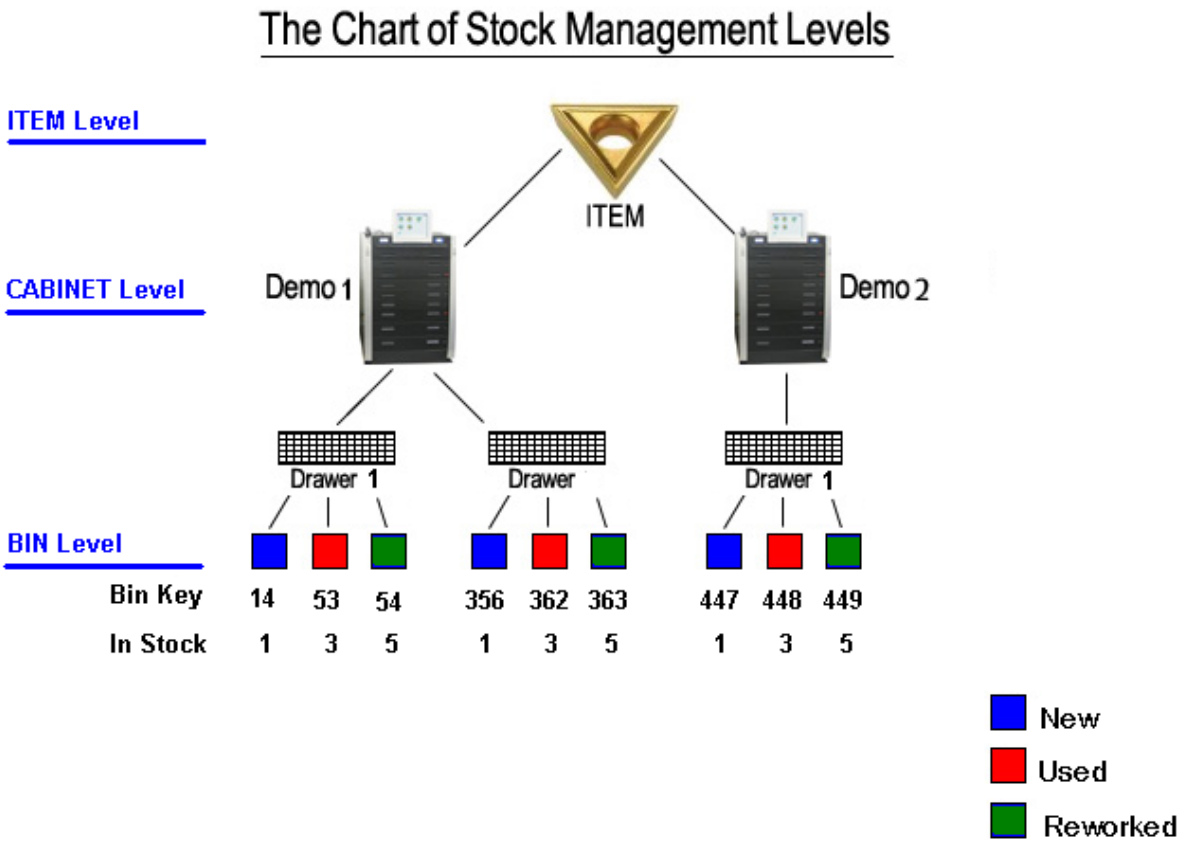
6.1 Stock Levels

The stock in the system is managed using Stock Levels.
There are 3 levels of management and the management is done for each item on each level – **BIN** level, **ITEM / CABINET** level and **ITEM** level.

For example, in the chart on the next pages we can see stock management levels of an item called **ITEM** (5530123):
ITEM (5530123) is defined in the system. It is located in 2 cabinets: Demo1 and Demo2. In Demo1 it is associated with 6 bins (in different drawers) and in Demo2 the item is associated with 3 bins. Some of the bins contain used items (indicated in red), some bins contain reworked items (indicated in green) and some bins contain new items (indicated in blue).

1. **BIN level** – manages the quantity of **ITEM** (5530123) in **each bin**.
2. **ITEM / CABINET level** – manages the quantity of **ITEM** (5530123) in **each cabinet**.
3. **ITEM level** – manages the quantity of **ITEM** (5530123) in **all cabinets**.

According to periods of use and usage statistics, the system calculates (automatically or manually, depending on the set parameters of the user) the usage data for each Stock Management Level. For example, the system calculates the required minimum and maximum quantities of items on each level in order to avoid stock shortage. It is the user's decision whether to use this calculation and allow the system to create automatic orders based on it. Alternatively, the user can define minimum and maximum quantities for each Stock Management Level manually.
For more information see Chapter D: Manual Processes (section 21).



Bin Key	Bin Code	Cabinet Name	Item Code	Item Type	Used Item	Reworked	In Stock
14	Demo1-01-01-14	MatrixDemo1	5530123	Reworkable	No	No	1.00
53	Demo1-01-04-11	MatrixDemo1	5530123	Reworkable	Yes	No	3.00
54	Demo1-01-04-12	MatrixDemo1	5530123	Reworkable	No	Yes	5.00
356	Demo1-09-07-07	MatrixDemo1	5530123	Reworkable	No	No	1.00
362	Demo1-09-07-13	MatrixDemo1	5530123	Reworkable	Yes	No	3.00
363	Demo1-09-07-14	MatrixDemo1	5530123	Reworkable	No	Yes	5.00
447	Demo2-01-06-14	MatrixDemo2	5530123	Reworkable	No	No	1.00
448	Demo2-01-07-01	MatrixDemo2	5530123	Reworkable	Yes	No	3.00
449	Demo2-01-07-02	MatrixDemo2	5530123	Reworkable	No	Yes	5.00

Important! System Options **904** and **905** allow you to choose whether to include Reworked and Used items when the system calculates stock quantities for **Item, Cabinet** or **Item** levels. For more details see the table in the following section.

6.2 Stock ROLL-UP by System Options 904 & 905

The following table describes the cases when the stock in the bin is rolled-up up to the Item/Cabinet and Item levels:

If **System Option 904** is set to 'YES', then a bin with a **reworked** item (of Durable, Kit or Reworkable item type) will be treated like a new bin, meaning that the stock from this bin will be rolled-up up to the Item/Cabinet and Item levels.

If **System Option 905** is set to 'YES', then a bin with a **used** item (of Durable or Kit item type) will be treated like a new bin, meaning that the stock from this bin will be rolled-up up to the Item/Cabinet and Item levels.

Parameter 904: Roll up reworked (not used) item	Parameter 905: Roll up used durable/kit item	Reworked	Used	Roll up Stock Quantities by Item type			
				Expendable	Reworkable	Durable	Kit
√	√			√	√	√	√
			√	N/A		√	√
		√		N/A	√	√	√
				√	√	√	√
			√	N/A			
		√		N/A			
√				√	√	√	√
			√	N/A			
		√		N/A	√	√	√
	√			√	√	√	√
			√	N/A		√	√
		√		N/A			

Please read more information about the influence of system options 904 and 905 in Chapter B: ITEM Life Cycle (section 5.4.4).

7 Orders (standard, Rework and Internal)

This module describes 3 different types of orders (standard orders, Rework Orders and Internal Orders) that are managed in 2 different ways - manually and automatically.
All order types are created in a similar way, therefore their screen and fields are described here once and differences between them will be noted.
The system displays a list of orders (each type in a different list), where we can add a new order, can sort and/or filter existing orders and can open them for maintenance.
The "Order Maintenance" screens contain the orders' general information (PO number, PO code, supplier, supplier's name and shipping method) and the following tabs (each contains information relevant to the order): **General**, **Details**, **Additional Fields**, **Links** and **Address**. Using the tabs, a user can view the content and status of each line item in the order and can update its details.

Three types of orders:

Order (standard):

An order for purchasing new items from a supplier.

1. Operated by "Menu: Order → Orders".
2. The order can be created both manually and automatically.
3. When creating the order, we select **items** that we want to order from the supplier. Select **item** of any type (Durable / Expendable / Reworkable / Kit).
4. In order to receive the items into the system, it is **not necessary** to make <**Send Order**> operation.
5. When the items are supplied by the supplier, we will usually receive them to the new bins (depends also on the system options 904 and 905).

Rework Order:

An order for sending used items from stock to rework/regrind process.

1. Operated by "Menu: Order → Rework Orders".
2. The order can be created manually only.
3. When creating the order, we select **bins** that store used items. Select **bin** that is defined as 'Used Item' (see for Bin Maintenance screen) and that contains any type of

item except Expendable. In order to take out the items physically from the cabinet, use "Adjust Item" option (or "Count Bins") in the TOUCH module to open the bins and to take the items out without adjusting quantities.

4. In order to Receive the items into the system, it is **necessary** to make <**Send Order**> operation.
5. When the items are returned from regrind process, we will receive them as usual to the bins defined as 'Reworked' (depends also on the system options 904 and 905).

Internal Order:

An order for transferring stock from cabinet to cabinet. The tools for transfer can be taken from a main warehouse or from any other cabinet. The ordered item can be transferred from any location to any location such as: bin to bin, from cabinet to cabinet and also from site to site.

1. Operated by "Menu: Order → Internal Orders".
2. The Internal order can be created both manually and automatically.
3. When creating the Internal order, we select **items** that the receiving cabinet needs (normally items that have fallen below their minimum stock level). Select **item** of any type (Durable / Expendable / Reworkable / Kit).
   Note: In order to take out the items from the transferring cabinet, it is **necessary** to make <**Transfer Order**> operation. See more information in Chapter B: TRANSFER Internal Order (section 8.2) and Chapter C: TRANSFER ORDER (section 13.6).
4. In order to Receive the items into the system, it is **not necessary** to make <**Send Order**> operation.
5. When the items are ready to be received into the ordering cabinet, we will receive them as usual to the bins that are associated with the item.

Two ways to manage orders:

A purchase order can be added to the system in two ways:

Manual order – a user enters this kind of order manually.

Automatic order – once in a pre-defined interval of time (day or week, subject to the administrator's definition), an automatic batch process will occur, that will create a purchase order. This automatic process produces a list of items and their quantities, needed to complete the required stock replenishment. It does this by checking the existing

stock levels and the system's parameters, specifically the stock management level (bin, cabinet or item). The system will set the order by comparing the current stock with the minimum and maximum levels in each stock management level. Purchase orders initiated by the automatic process can be saved as either "Draft" for review and approval before sending to the supplier, or a normal order is created and automatically sent to the supplier.

7.1 Create Manual Orders

1. To create a standard Order, go to "Menu: Order → Order → Orders".
   To create a Rework Order, go to "Menu: Order → Order → Rework Orders ".
   To create an Internal Order, go to "Menu: Order → Order → Internal Orders ".
2. Click the  <Add> button on the Menu bar.
3. Enter values for the mandatory fields:

   PO Number: Composed of two values: a code prefix and an automatic number, received automatically when the order is saved.

   PO Code: Purchase order code used as an order name

   Supplier Name *: The supplier for that order. The field "Shipping Method" will be filled automatically with shipping method of the selected supplier if user has not made any selection yet.



Important! Please note that for an **Internal Order**, 'Internal Supplier' will automatically be defined as the supplier. Internal Supplier is automatically added when creating a new database or updating the database to version 4. The system uses Internal supplier for all Internal Orders and prohibits deleting his record and changing the supplier of Internal Orders.

   Shipping Method *: The shipping method for that order. This field will be filled by default with shipping method of the selected supplier if user has not made any selection yet. This is a mandatory field (*) and must be filled-in.

4. Click the  <Save> button on the Menu bar to create the order in the system. Once the order is created, PO number is automatically received and the order tabs are created.



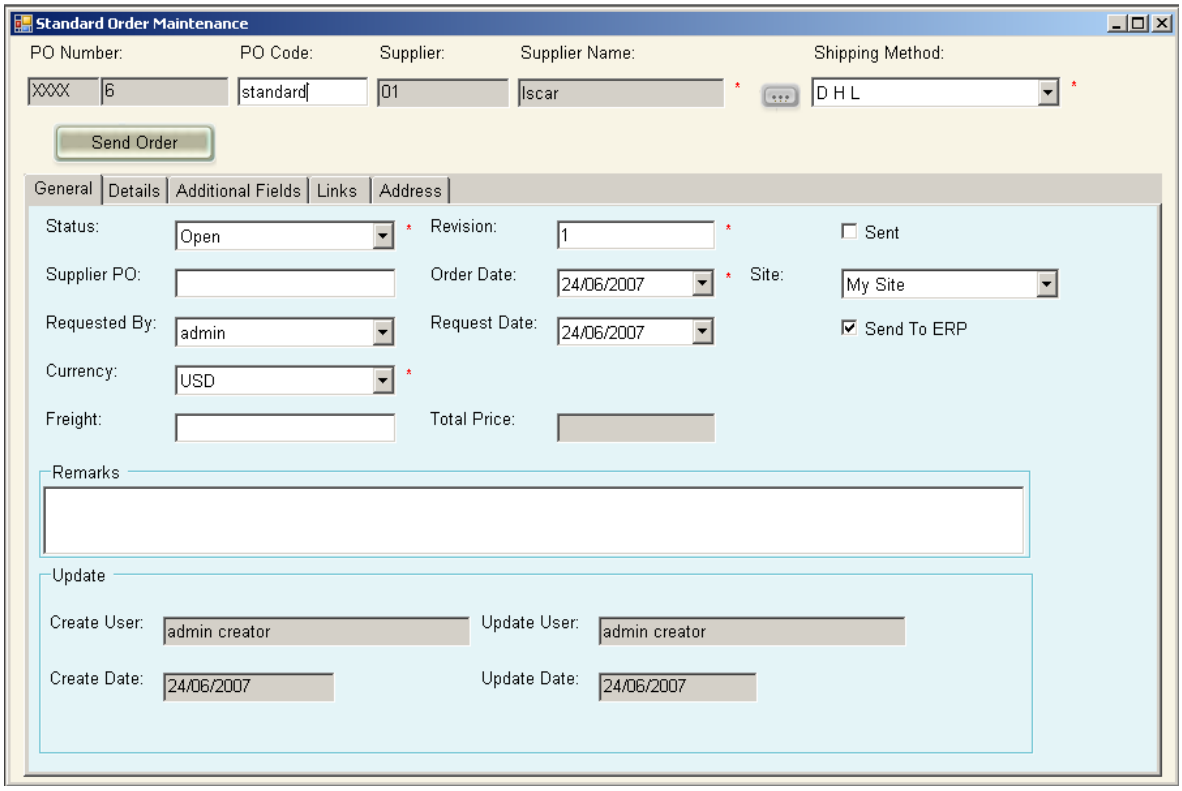
Note: Once the order is created, it cannot be deleted from the system, but only can be closed.

5. Continue to enter values for the fields in the following tabs.

7.1.1 Tab: General

Note: When adding a new order, only the general fields at the top of the page and the "General" tab appear. The other tabs will only appear after entering the mandatory values and saving the order.

The General tab contains additional general details regarding the order:

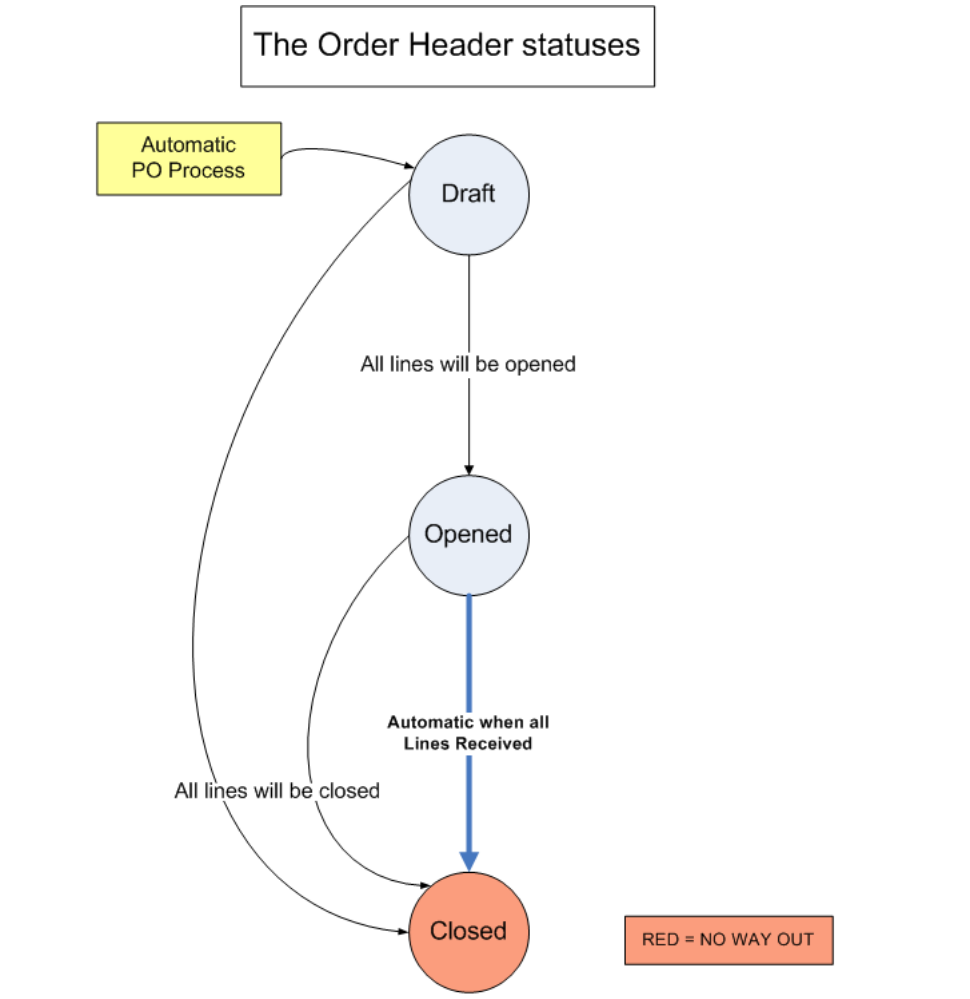


Statuses:

- **Draft**: Automatically initiated orders which still need to be approved.
- **Opened**: Automatically or Manually initiated orders, which are already sent or yet to be sent to the supplier (this is the default status for new orders).
- **Closed**: Status that can be updated automatically or manually:
  - The order status is updated **automatically** when all of the ordered items are received fully, or;

- The order status is updated **automatically** when some of the ordered items are received partially, but the user confirms closing all of the lines, or;
- The order status can be updated **manually**, even if some of the order lines are still open or only partially received. This will require user confirmation to close the order lines.

The following chart shows the order header statuses including the valid transitions between statuses.



When the order header status is changed from Draft to Open all the line statuses change from Draft to Open
When the Header Status changes to closed all the lines that are not Canceled change to Close

Other details regarding the order:

Revision *: The number of times the order has been revised.

Supplier PO: The supplier's order reference number, used for follow up.

Order Date *: Indicates the date the order was initiated.

Requested By: Indicates the name of the user who made the request.

Request Date: Indicates the date by which the order is needed.

Currency *: Received from the supplier's definition and used for the order's cost calculation.

Freight: The amount to be paid for shipping the order.

Total Price: The value of all lines in the order automatically calculated.

Sent: Indicates whether the order was sent to supplier.

Site: The site that the order is created for.

Send to ERP: Indicates whether this order and its order lines will be sent to an ERP system. This value is automatically received from Supplier definition.

Remarks: General remarks.

Create User, Create Date, Update User, Update Date:

Filled automatically by the system and cannot be changed manually.

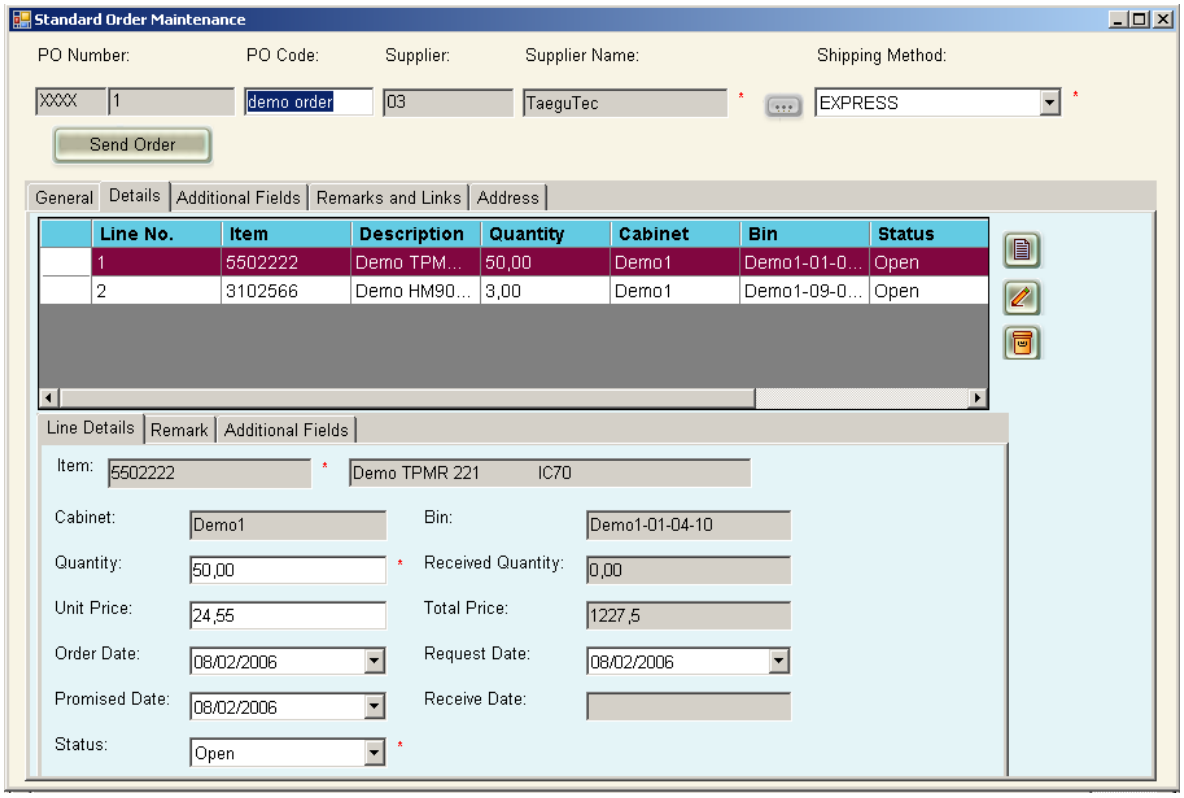
7.1.2 Tab: Details

This tab enables adding, updating and deleting order lines. It is divided into two sections: The top section contains a grid, which displays PO records.

The lower part contains an index tab with the following sub-tabs: **Line Details**, **Remarks**, **Additional Fields** and **Invoices**.

When creating a standard “Order" or "Internal Order", the user will have to select the ITEMS to be ordered.

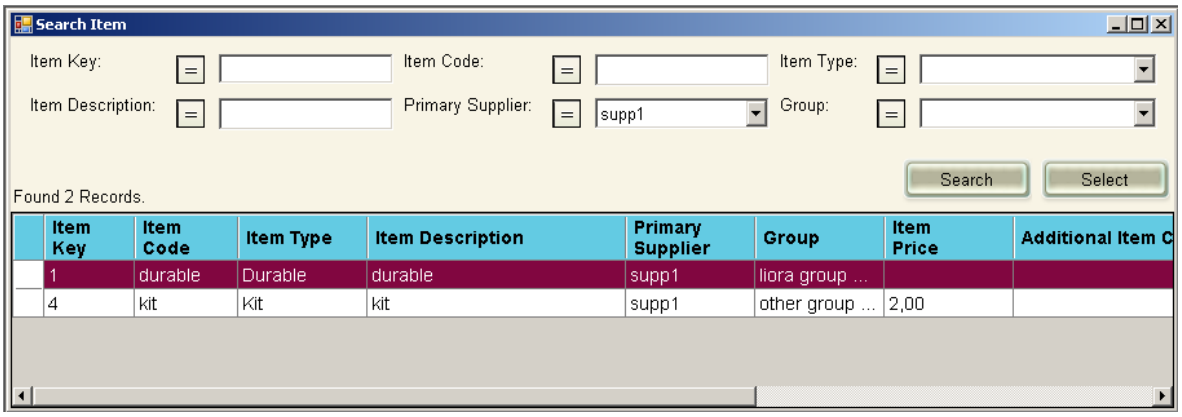
When creating a "Rework Order", the user will have to select BINS which contain the used items that need to be reworked.



Adding ITEMS to a standard Order or INTERNAL ORDER:

1. Click the <Add> button, located at the right of the order line grid.

   The following screen will appear.



   It will display all the items of any types.

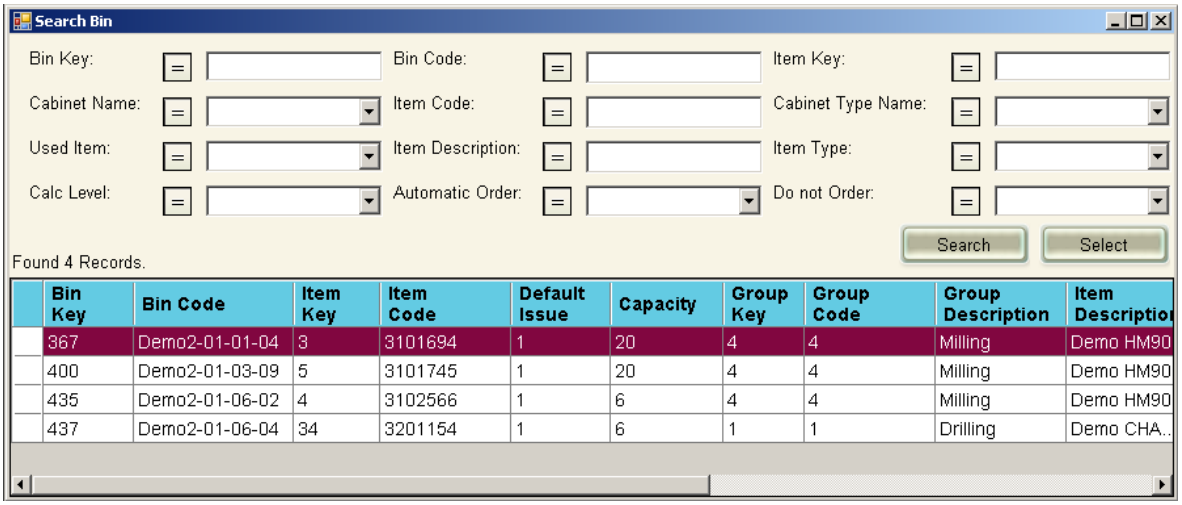
2. Search for the required ITEM, mark the line and click the <Select> button or double-click the line. The items screen will be closed and the selected item will be added to the order. As a result, an additional index tab will appear bellow.

Note: If an item, which is not attributed to any supplier, is selected, a notification message will appear for the line.

3. Fill the values for the fields "Cabinet", "Bin", "Quantity" etc.

Adding BINS to a REWORK order:

1. Click the <Add> button, located at the right of the order line grid.
   The following screen will appear.



   It will display all the bins that contain used items of Durable / Kit / Reworkable types.

2. Search for the required BINs, mark the line and click the <Select> button or double-click the line.

Note: You can select multiple bins by holding the CTRL key and selecting the records.

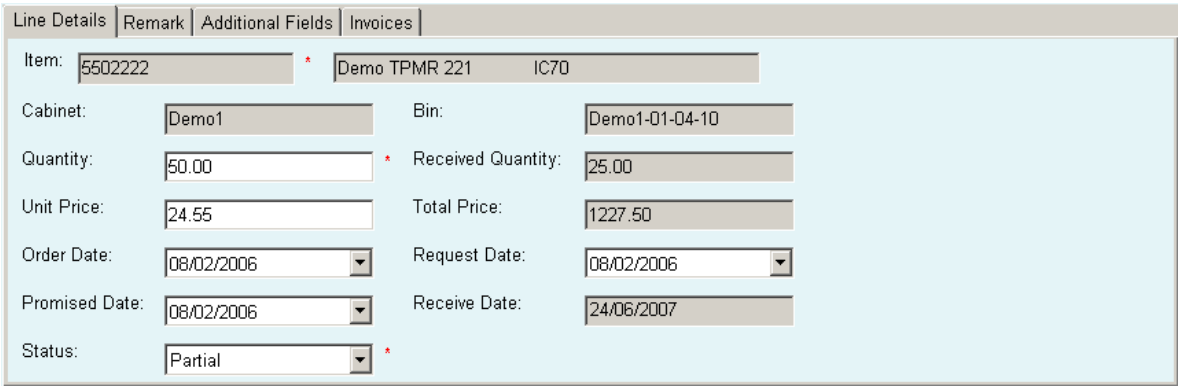
   The Bins screen will be closed and the selected bins will be added, transferring all the bin stock to the order. As a result, an additional index tab will appear below.
3. Change the values for the fields "Quantity" etc, if required.

Sub-tabs:

The sub-tabs created below appear after adding an item/bin to an order.

If you cannot see the tabs and you need to edit/view a line's details, select the required line in the order screen grid and click the <Update> button that is on the right side of the grid or double-click the line. As a result, an additional index tab will appear below.

Sub-Tab: Line Details



Fields description:

Item: The ordered item and its description.

Cabinet: Select the cabinet for which the order is intended or leave it empty.

Bin: Select the bin for which the order is intended or leave it empty. When the item is received, this will be the default bin. However, the user is allowed to select a different bin when receiving.

Note: In case of a "**Rework Order**", once the bin is selected, the fields 'Cabinet' and 'Bin' are set and disabled. Also in case the focus on the order line was lost, these fields become disabled.

Quantity: The order line quantity.

Received Quantity: The quantity that has already been received.

Unit Price: The item's unit price, as defined in the "Item" module.

Total price: The item's price, multiplied by its ordered quantity.

Order Date: The date the item was ordered.

Request Date: The requested delivery date for the order.

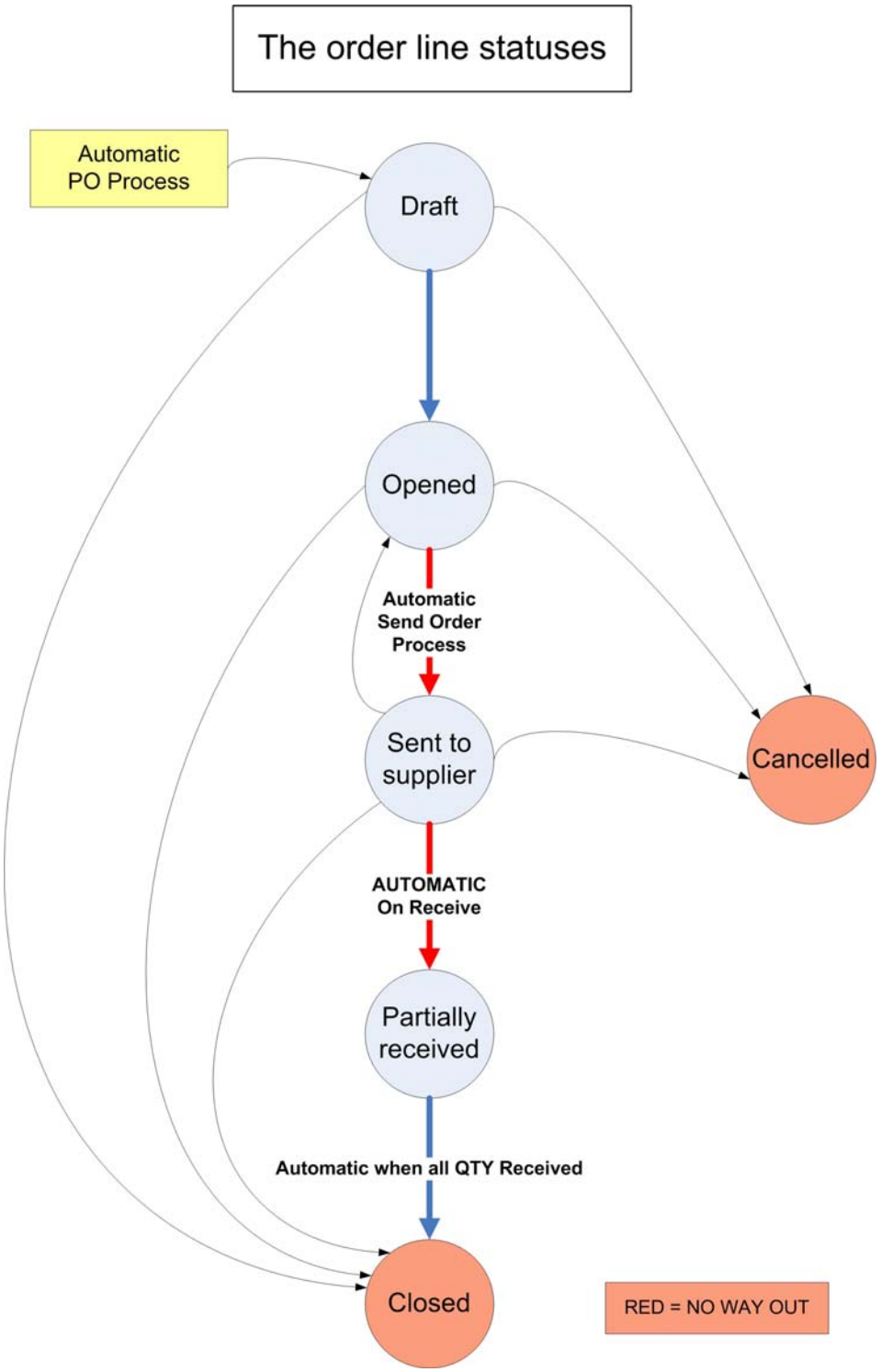
Promised Date: The date delivery promised by the supplier.

Receive Date: The last date any quantity was received.

Status: The order line status:

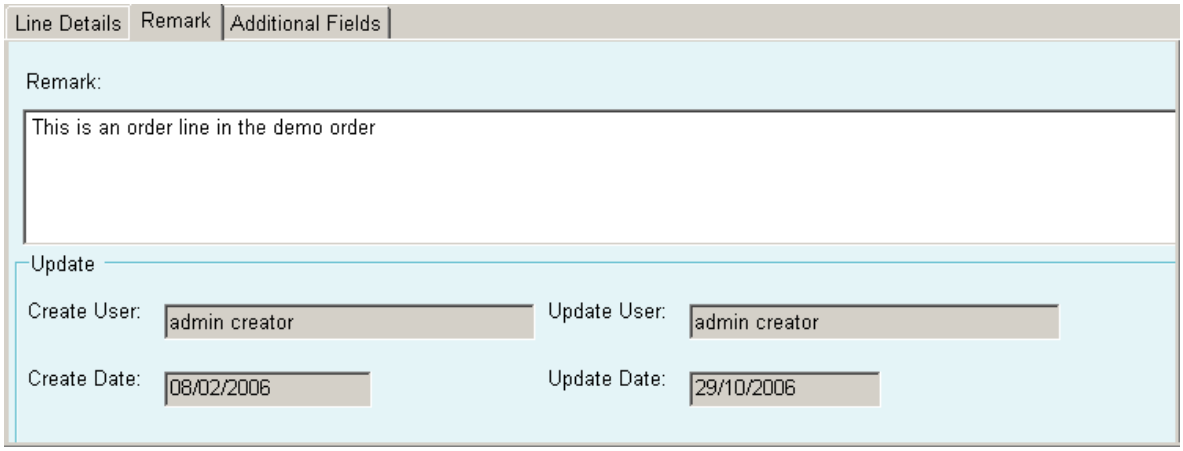
- Draft – indicates that the order was automatically initiated by the system and needs to be approved.
- Opened – a manually initiated order line, which is yet to be sent to the supplier. This is the default status for new order lines.
- Sent to supplier – the item from the line was sent to supplier
- Partial Receive – part of the ordered quantity had already been received
- Closed – the line's status is automatically changed to this option once the entire quantity is received. It can also be updated manually, when no additional items are expected.
- Cancel – a line can be set as cancelled if none of its items were received yet.
- On Route – (relevant only for Internal Orders) Items that were already transfered by "Transfer Order" option but have not yet been received into the ordering cabinet.

The following chart shows the line statuses including the valid transitions between statuses.



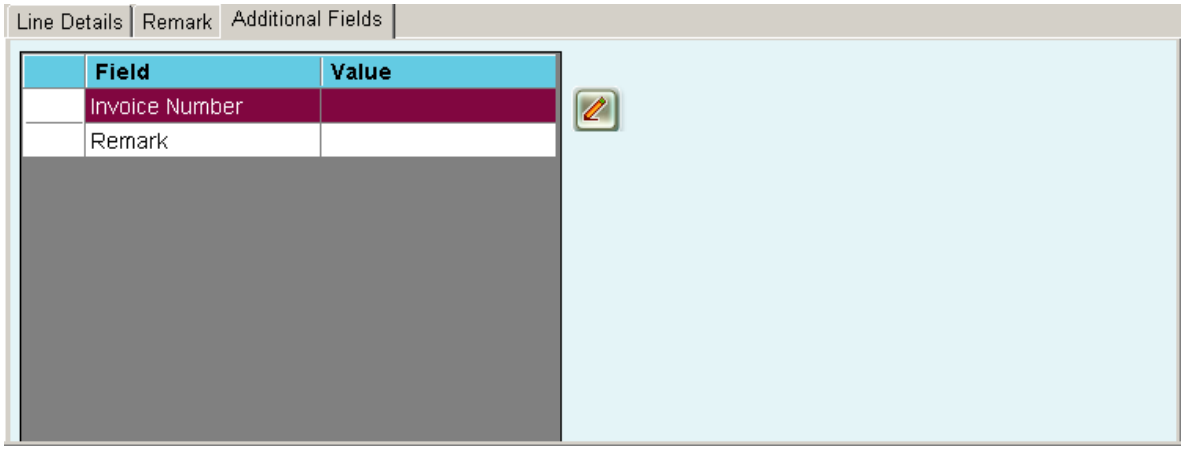
Sub-Tab: Remark

This tab enables entering remarks related to the lines. To edit an existing remark, select the required line and click the <Update> button, update the remark and save.



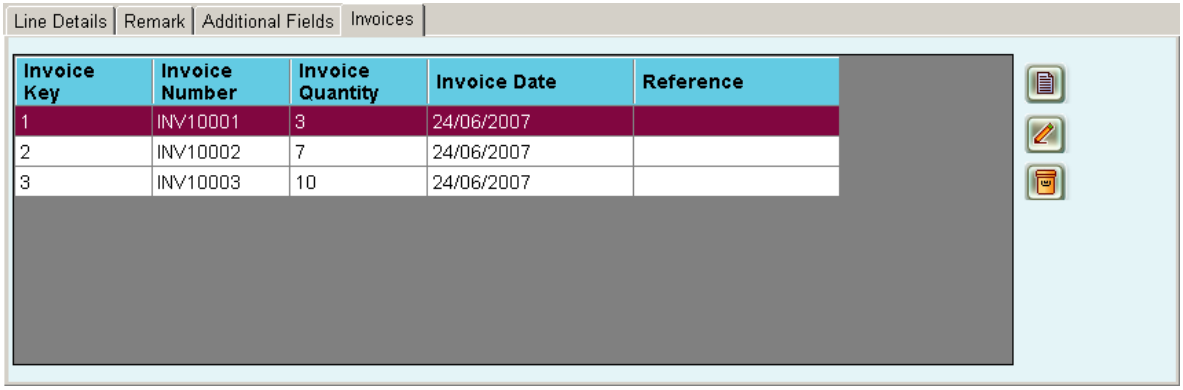
Sub-Tab: Additional Fields

This tab displays the additional fields defined for the purchase order line, and enables updating their values for the order.



Sub-Tab: Invoices

This tab displays all the invoices for the current order line, and enables adding, updating and deleting their values.



Deleting items from the order

In order to delete an item line from the order:

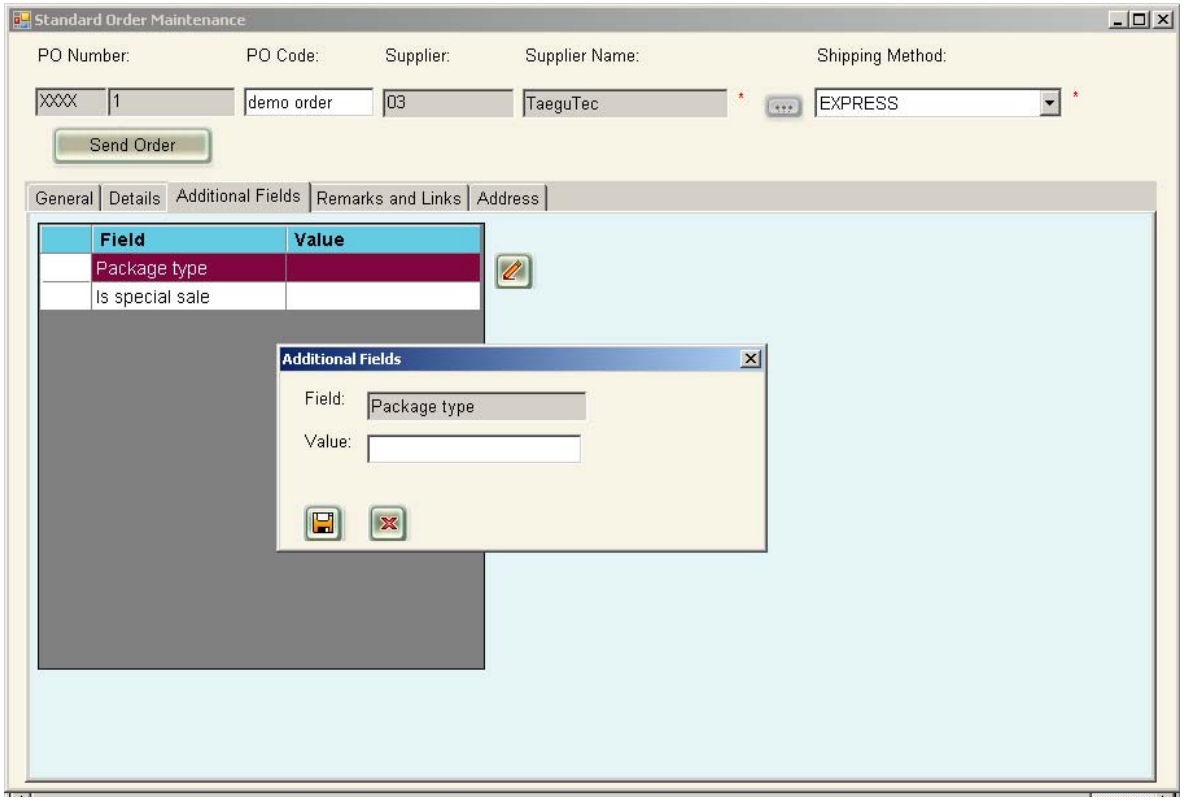
1. Select the line in the grid and click the <Update> button that is on the right side of the grid or double-click the line.
2. On the tab "Line Details" that is bellow the grid, change the status of the line to status 'Cancel'.
3. While the line is selected in grid, click the <Delete> button that is on the right side of the grid and confirm the deletion message.

Note: If an item line was already partially received (status 'Partial'), you cannot set the line status to 'Cancel' and therefore the line cannot be deleted from the order.

7.1.3 Tab: Additional Fields

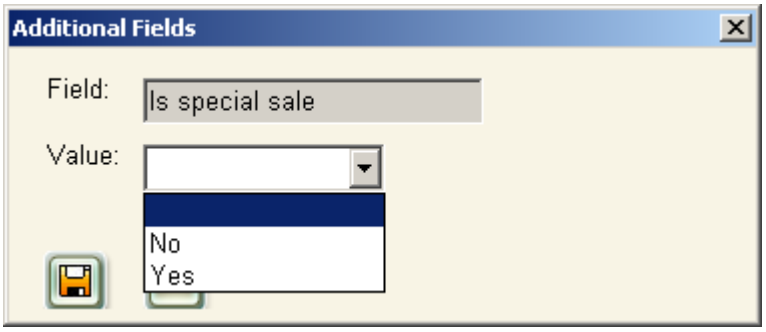
This tab displays additional fields associated to the order's header.

This screen only allows editing the fields that were already added. For instructions how to add more fields to the entity, see Chapter B: Additional Fields (section 5.5).



In order to update an Additional Field record:

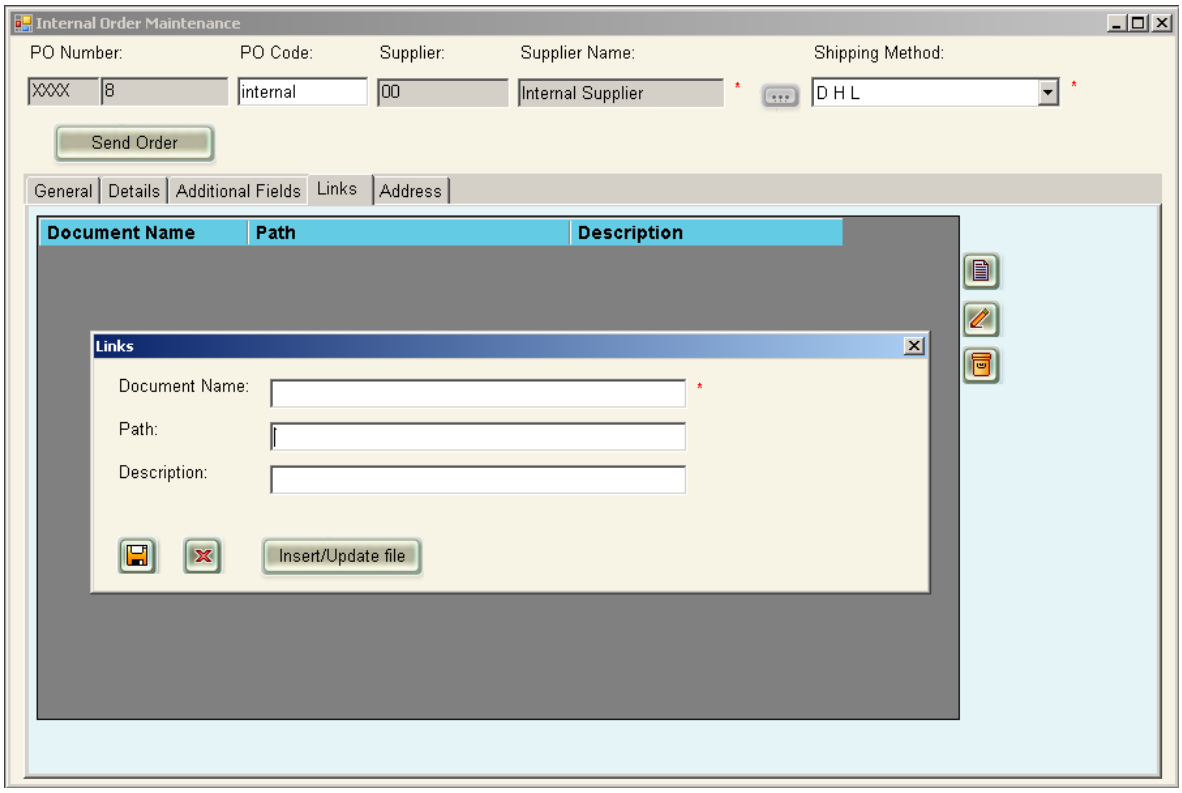
1. Select the record and click the  <Update> button from the right side of the grid. The screen as following will appear:



2. Set the value and click the  <Save> button. The value will be updated for the current order.

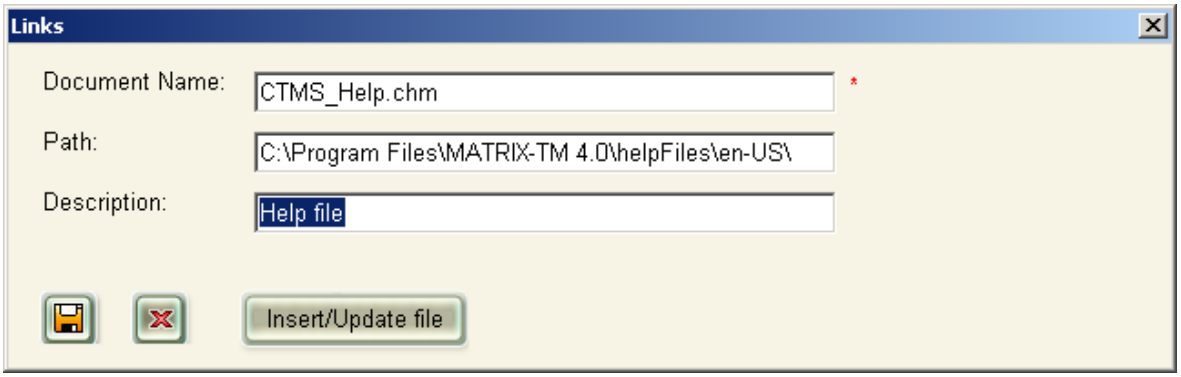
7.1.4 Tab: Links

Similar to other modules in the system, this tab contains remarks and files that can be associated with the order. Each link contains the following details: the file's name, its full path, type and description.



Adding / Updating Links:

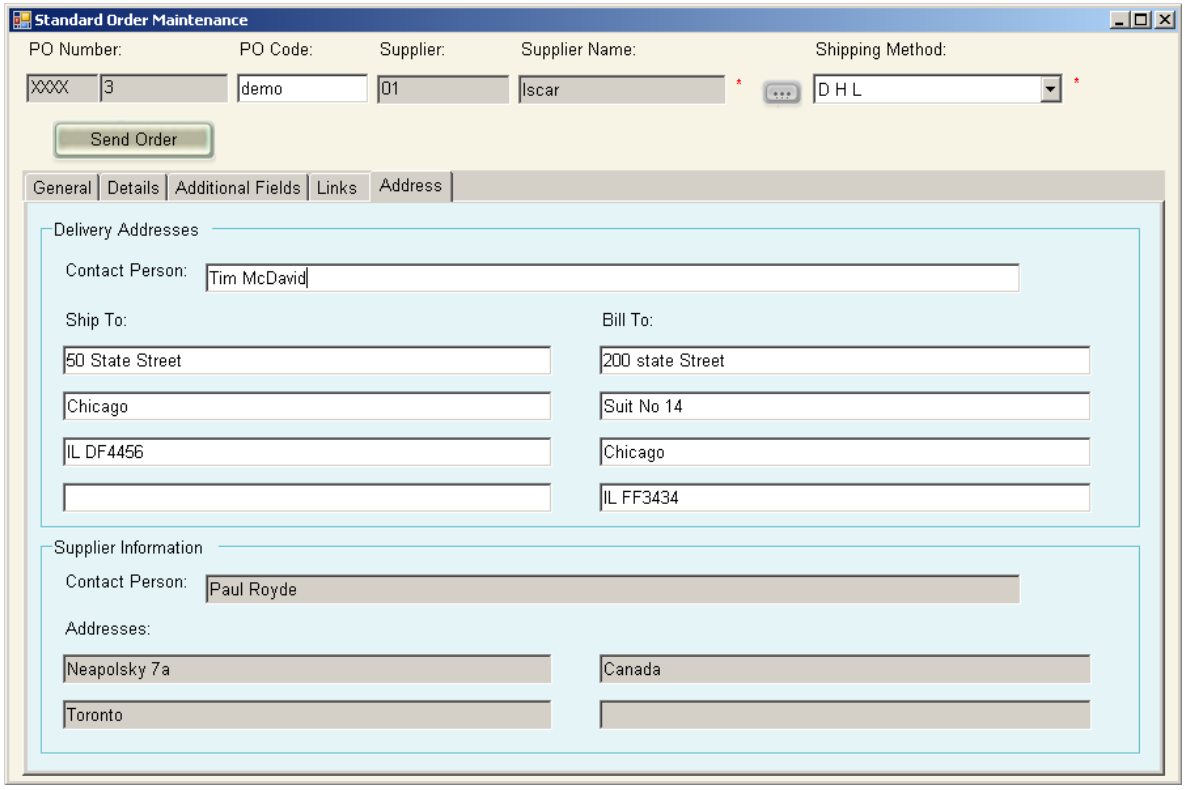
1. Click the <Add> or <Update> button (before updating select the required row in the grid). The following screen will appear:



2. If you need to attach a file to the order, click the <Insert/Update file> button, select file, and the Name / Path fields will be filled automatically. Otherwise type the fields manually.
3. Click the  <Save> button to save the record.

7.1.5 Tab: Address

This tab displays addresses and contact information of the ordering site and the supplier.



Delivery Address fields: Automatically filled-in with the address and the contact person data of the **Site** for which this order was created (see 'General' tab). This data can be modified temporarily for the specific order or permanently on the Site definition (see Chapter D: Site (section 16.6)).

Ship To: The address to where the ordered items should be delivered.

Bill To: The address to where the order invoice should be sent.

Contact Person: The name of the contact person at the ordering site.

Supplier Information fields: Automatically filled-in with the address and the contact person data of the applicable **Supplier**. This data is non-editable on the order and can be modified only on the Supplier definition (see Chapter B: Suppliers (section 5.1))

Fill-in the details and click the <Save> button on the Menu bar.

7.2 Create Automatic Orders

The system allows you to create automatic orders for replenishing stock. The ordered items and their quantities are determined by the system calculation according to the replenishment parameters. The calculation process compares between the current stock and the required stock and creates the automatic orders if any stock shortage was found.
There are two ways to run the process that creates automatic orders:

1. By manual run and/or;
2. By setting a time in the system for scheduling the run.

For both ways, first you need to set manual definitions described in the following section (Chapter B: Manual User Definitions (section 7.2.1)).

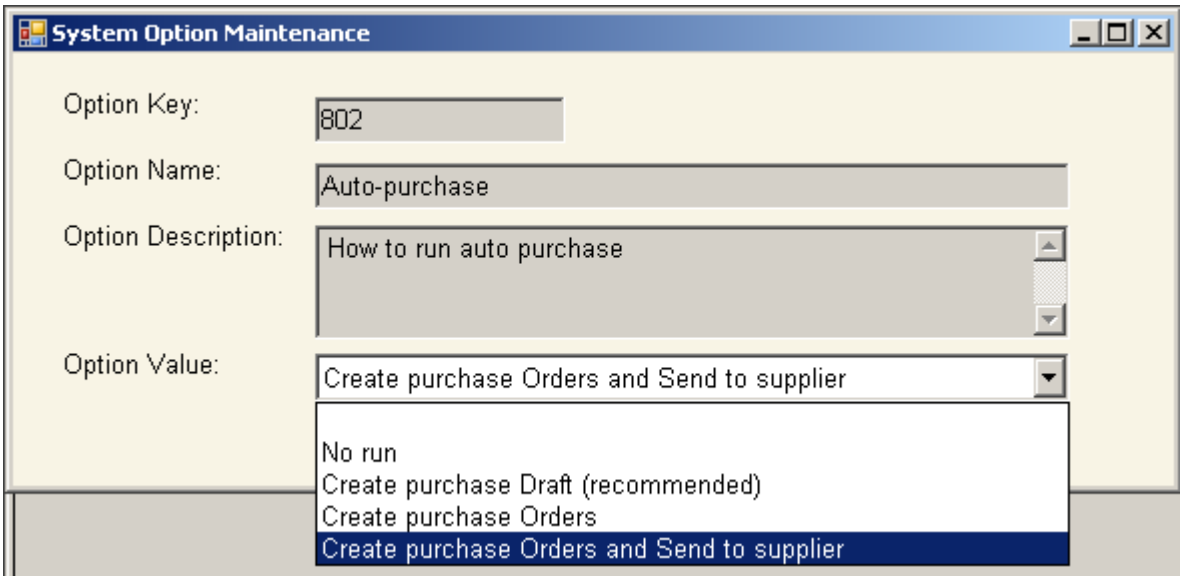
Note: Once an automatic order is generated by the system, it includes "AUTO PURCHASE" as a remark and can be updated exactly like a manual order. See additional instructions below.

7.2.1 Manual User Definitions

1. Go to "Menu: Administration → System Options". Use information described in Chapter D: System Options (section 17) for parameters search.

   The system options relevant for automatic orders:

2. Search for **Parameter 802** (Auto-purchase) and select the desired value.



No run – The system will not create orders automatically.

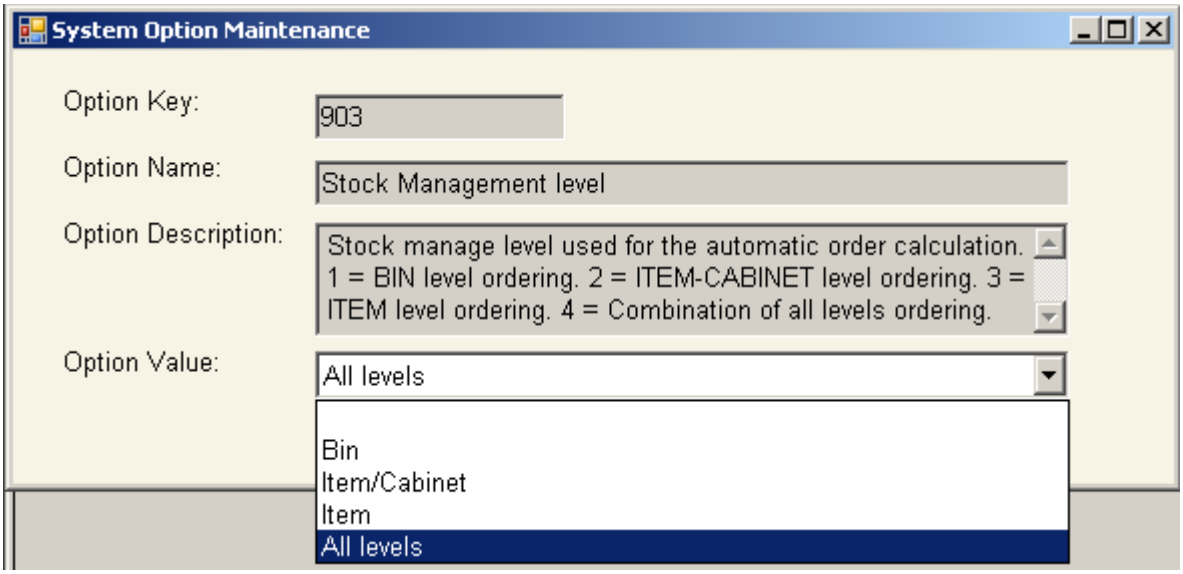
Create purchase Draft – The system will create orders in 'Draft' status. In order to send those orders, user will have to set the status to 'Open' and send the orders manually. This option is recommended for having control on the orders before sending them to supplier.

Create purchase Orders - The system will create orders in 'Open' status. The user will have to send the orders manually.

Create purchase Orders and Send to supplier - The system will create orders in 'Open' status and will send them automatically to suppliers according to the supplier's details (using E-Mail).

Important! In order to create an automatic order for item, the item must have a defined supplier.

3. Search for **Parameter 806** (Default file format for order) and select the file format for the automatic order.
4. Search for **Parameter 903** (Stock Management level) and select the desired value. Use information described in Chapter B: Stock Management Levels (section 6) for understanding the significance of each level.


System Option Maintenance
Option Key:
903
Option Name:
Stock Management level
Option Description:
Stock manage level used for the automatic order calculation. 1 = BIN level ordering. 2 = ITEM-CABINET level ordering. 3 = ITEM level ordering. 4 = Combination of all levels ordering.
Option Value:
All levels
Bin
Item/Cabinet
Item
All levels

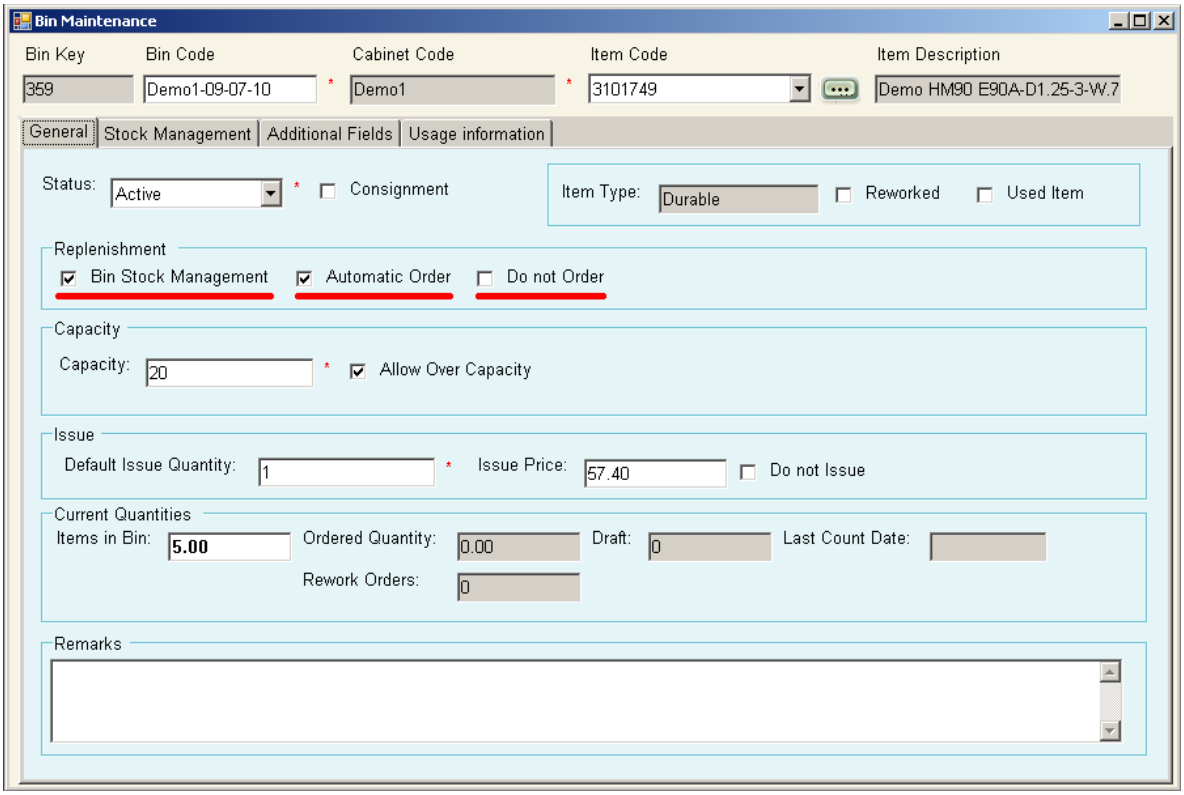
Bin – the system will create automatic orders by checking the stock and min/max parameters only on the Bin level. This is the lowest stock level.

Item/Cabinet – the system will create automatic orders by checking the stock and min/max parameters only on the Item/Cabinet level.

Item - the system will create automatic orders by checking the stock and min/max parameters only on the Item level. This is the highest stock level.

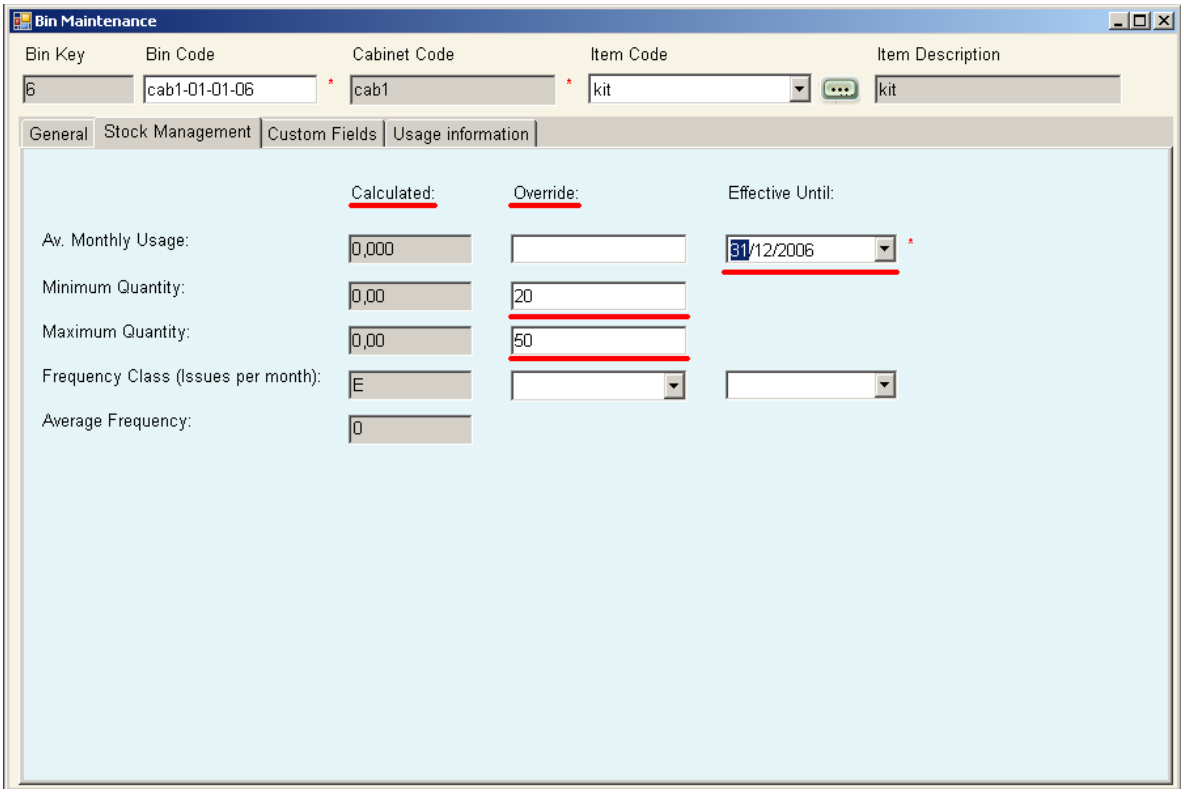
All levels - the system will create automatic orders by checking the shortage on All the Levels. Starting from the bin, then going to Item/cabinet and finally creating orders for what is left to order on the item level.

5. If you decided to include the **Bin level** for automatic orders:
   Go to the "Bin Maintenance" screen of the bins that you wish to include for automatic orders:
   - Select "General" tab and fix the following settings:



- Check the box of "Bin Stock Management" field.
- Check the box of "Automatic Order" field.
- Make sure that the field "Do not Order" is not checked.

- Select "Stock Management" tab and fix the following settings:



Look at the Minimum and Maximum levels which are calculated by the system. If they are sufficient, you do not need to change any data in this tab. If you wish to override those values, do the following:

- Fill in the value for "Minimum Quantity" field
- Fill in the value for "Maximum Quantity" field
- Fill in the date for "Effective Until" field. This date will be effective for creating automatic orders according to minimum and maximum quantities that were inserted manually ("Override" column). When this date expires, the automatic orders will be created according to the minimum and maximum quantities that were calculated automatically ("Calculated" column).

6. If you decided to include the **Item/Cabinet level** for automatic orders:
   Go to the "Cabinet Maintenance" screen of the cabinets that you wish to include for automatic orders:
   - Select "General" tab and choose the following settings:

- Select 'Stock Management in Item / Cabinet Level' for "Stock Management Level" field.

Go to the "Item Maintenance" screen of the items that you wish to include for automatic orders:

- Select "General" tab and choose the following settings:
- Check the box of "Item Management Level" field.

- Select "Stock Management" tab and choose the following settings:
  Look at the Minimum and Maximum levels which are calculated by the system. If they are sufficient, you do not need to change any data in this tab. If you wish to override those values, do the following:
- Select **"Item/Cabinet"** row from the grid of the relevant cabinet
- Fill in the value for "Minimum Quantity" field
- Fill in the value for "Maximum Quantity" field
- Fill in the date for "Expire Date" field. This date will be effective for creating automatic orders according to the minimum and maximum quantities that were inserted manually ("Override" column). When this date expires, the automatic orders will be created according to minimum and maximum quantities that are calculated automatically ("Calculated" column).

7. If you decided to include the **Item level** for automatic orders:
   Go to the "Item Maintenance" screen of the items that you wish to include for automatic orders:
   - Select "General" tab and choose the following settings:
   - Check the box of "Item Management Level" field.

   - Select "Stock Management" tab and choose the following settings:
     Look at the Minimum and Maximum levels which are calculated by the system. If they are sufficient, you do not need to change any data in this tab. If you wish to override those values, do the following:
   - Select **"Item"** row from the grid.

- Fill in the value for "Minimum Quantity" field.
- Fill in the value for "Maximum Quantity" field.
- Fill in the date for "Expire Date" field. This date will be effective for creating automatic orders according to minimum and maximum quantities that were inserted manually ("Override" column). When this date expires, the automatic orders will be created according to the minimum and the maximum quantities that are calculated automatically ("Calculated" column).

8. To create the automatic orders based on the manual definitions **without scheduling**, you need to run the manual process. The manual process will compare between the current stock and the required stock and will create the automatic orders if any stock shortage will be found. For more information read Chapter D: Automatic PO Process (section 21.2).
   Otherwise, to create the automatic orders **by scheduled time**, please continue to Chapter B: Schedule the Automatic Orders (section 7.2.2).

7.2.2 Schedule the Automatic Orders

This section describes the steps for creating automatic orders by scheduled time.
The primary condition is to set manual definitions described in the previous section (Chapter B: Manual User Definitions (section 7.2.1)).

1. Go to "Menu: Administration → System Options". Use information described in Chapter D: System Options (section 17) for parameters search.
2. Define in the system options when to run the automatic orders process.
   Search for **Parameter 807** (Auto PO Day) and select the date to generate the Automatic Purchase Orders.
   Search for **Parameter 808** (Auto PO Time) and select the time to generate the Automatic Purchase Orders.

Setting these parameters will automatically create a job for the database under the name [DBname]**AutoPOService**. At the scheduled time, this job will automatically be executed

and will run the "Automatic Orders" process. When changing the parameters, the job will be recreated.

In order to view the status and the history of the job, you can login to the "Database Administration" program on the computer where the database is located and view the "Activate Jobs" option. For more information see Chapter E: Activate Jobs (section 24.3).



Note: If you have chosen in the manual definitions to create automatically **Draft** order, you will need to edit the draft in order to convert it to an active order and then send the order manually. If you have chosen to create automatically **Orders with Send to Supplier**, the orders will be created and automatically sent to the supplier using the supplier's email.

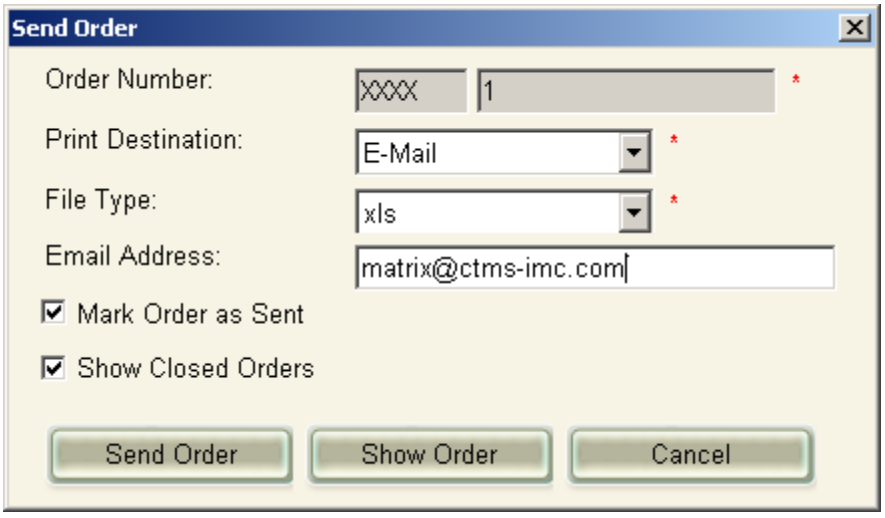
7.3 Sending an Order to Supplier

An order can be sent to a supplier in 2 ways:

- An **automatic** operation done after creating automatically an Order or an Internal Order. This option is described in Chapter B: Create Automatic Orders (section 7.2).
- A **manual** operation done by the user through the "Order maintenance" screen. The order must be in the 'Draft' or 'Open' status. Follow the steps described here in order to send the order.

In order to send the order manually:

1. Open the "Order maintenance" screen on the tab "General".
2. If the order is in status 'Draft', change the status to 'Open' and save the order details by clicking the  <Save> button on the Menu bar.
3. Click the button  . The following screen will appear:



4. Fill in the required field:

   Print Destination: Choose the output destination: **E-Mail**, **Print** or **No Sending** – select this option together with 'Mark Order as Sent' if you need to change the status of the order lines to 'Sent to supplier' without sending the order.

File Type: Choose the file type (Xls, Xml, Rtf or Report).

Email Address: If 'E-Mail' was chosen as a "Print Destination", then the email address must be entered. By default, the email of the order supplier will be copied to here.

Mark Order as Sent: Check this option to mark the order as 'Sent'. It will also change all order lines to 'Sent to supplier' status.

Show Closed Orders: Check this option to include the closed order lines in the order output file.

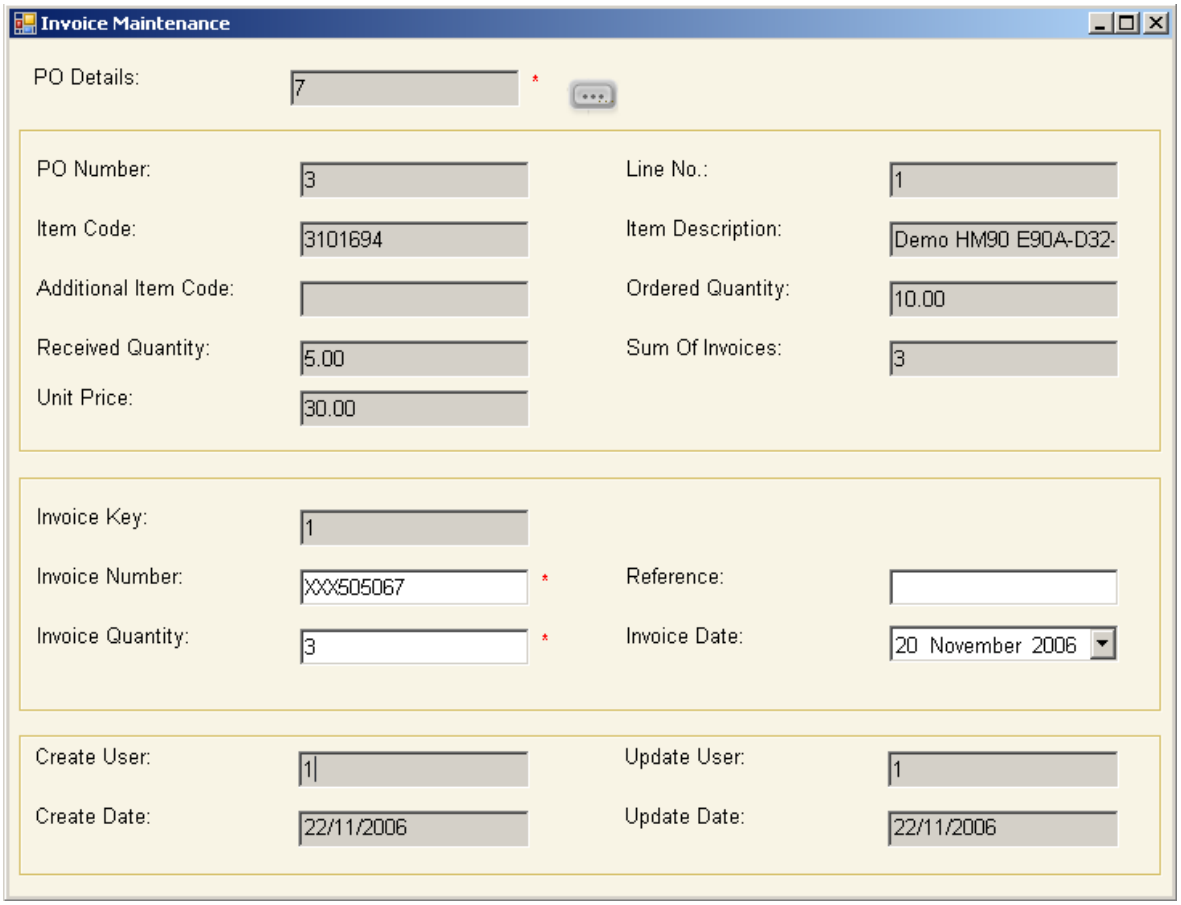
5. Click the <Show Order> button to view the order in the chosen format before sending.
6. Click the <Send Order> button to execute the order definitions.

7.4 Order Invoice Entry

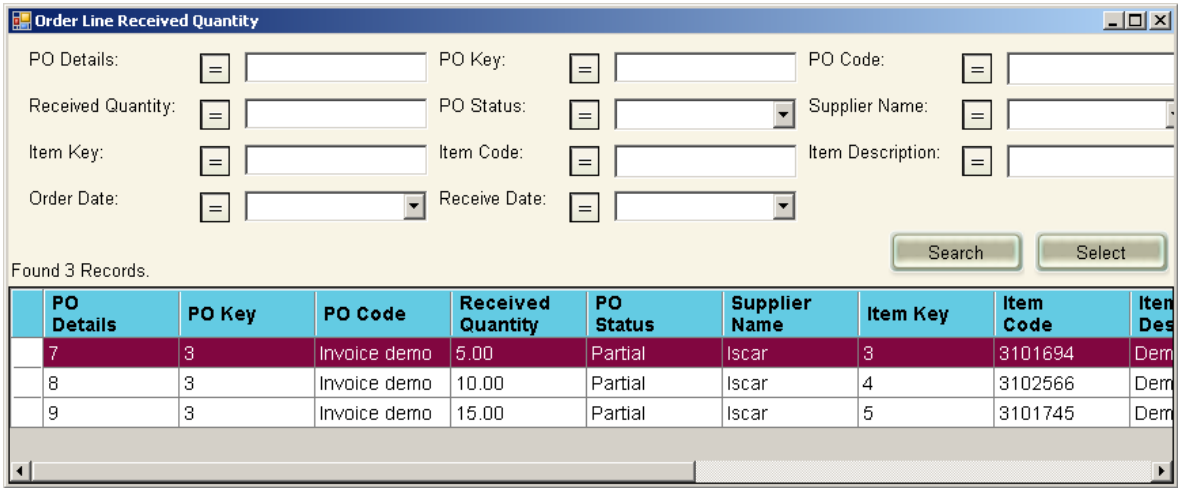
MATRIX-TM lets you control the approval of supplier invoices by assigning supplier invoices to received order lines. MATRIX-TM verifies that a received quantity can only be invoiced by the supplier once. After a supplier invoice is entered, you can print an invoice approval slip for processing actual payment to the supplier.

Important! This function tracks and compares supplier invoices and received orders by quantity **only**. It is not a full supplier-invoice approval program. In order to handle the payment of the supplier invoices, an ERP or accounting system should be used.

1. Go to "Menu: Order → Order → Invoices".
2. Click the <Add> button on the Menu bar.
   The "Invoice Maintenance" screen will be displayed.



3. Click the  browse button to select the order line that was fully or partially received to the cabinet. The screen "Order Line Received Quantity" will be displayed listing all the received order lines that **were not approved yet**.



4. Select the order line from the list and double-click (or click the <Select> button). The data from the order line will be filled-in automatically into the "Invoice Maintenance" screen.

PO Detail:	Purchase order line key.
PO Key:	Purchase order key.
Line No.:	Line number in the order.
Item Code:	The item code from the order line.
Item Description:	The item description from the order line.
Additional Item Code:	The additional item code from the order line.
Ordered Quantity:	The original ordered quantity from the order line.
Received Quantity:	The received quantity from the total ordered quantity.
Unit Price:	The item price from the order line.
Sum of Invoices:	The sum of quantity of the invoices which have been already assigned to this order line.

5. Fill in the fields:

Invoice Number:	The number of the supplier invoice.
Invoice Quantity:	The quantity charged in the invoice line. It is possible to add a quantity which does not exceed the received quantity less the previously approved invoiced quantities.
Reference:	A place to add an additional reference e.g. an accounting number.
Invoice Date:	A date associated with the invoice, that can be used for invoice issue or payment date.

6. Click the  <Save & Close> button on the Menu bar.

After all the invoice lines have been input, select the invoice and choose the  <Print> button to print an Invoice Approval Slip.

8 Stock Transactions

This chapter describes the transaction types which change stock quantities.

8.1 RECEIVE Items

Receive occurs when the ordered items are available to be received into stock. This module supports receive of all the types of order:

Standard Order: Order of new items from supplier (vendor).
This order type can contain any type of item (Durable / Kit / Reworkable / Expendable).

Rework Order: Order to rework/regrind items by a regrinding supplier.
This order can contain Reworkable item type.

Internal Order: Order of items issued from one cabinet by the "Transfer Orders" option for transfer to another cabinet (the ordering cabinet).
This order can contain any type of item.

8.1.1 Receive Rules

The 'RECEIVE' option for an order line depends on the **Item Type**, **Bin Type**, **System Options 904 & 905, Order Type** and the combination between them. In the following tables, see the cases where the 'Receive' option is available and when it is not.

RECEIVE by system option 904:

Influence only on Reworkable item type:

System Option 904	Reworked	Used	RECEIVE	
			Reworkable	
			STANDARD PURCHASE ORDER	REWORK (REGRIND) ORDER
NO			√	
		√		

	√			√
YES			√	√
		√		
	√		√	√

RECEIVE by system option 905:

Influence only on Durable / Kit item types:

System Option 905	Reworked	Used	RECEIVE	
			Durable	Kit
NO			√	√
		√		
	√			
YES			√	√
		√	√	√
	√		√	√

Summary:

The item type **Expendable** can only be new (cannot be reworked), therefore it is received only from standard order and not influenced by system options.

The item type **Reworkable** is influenced only by system option 904.

The item types **Durable and Kit** are influenced only by system option 905.

See more information in Chapter B: ITEM Life Cycle (section 5.4.4).

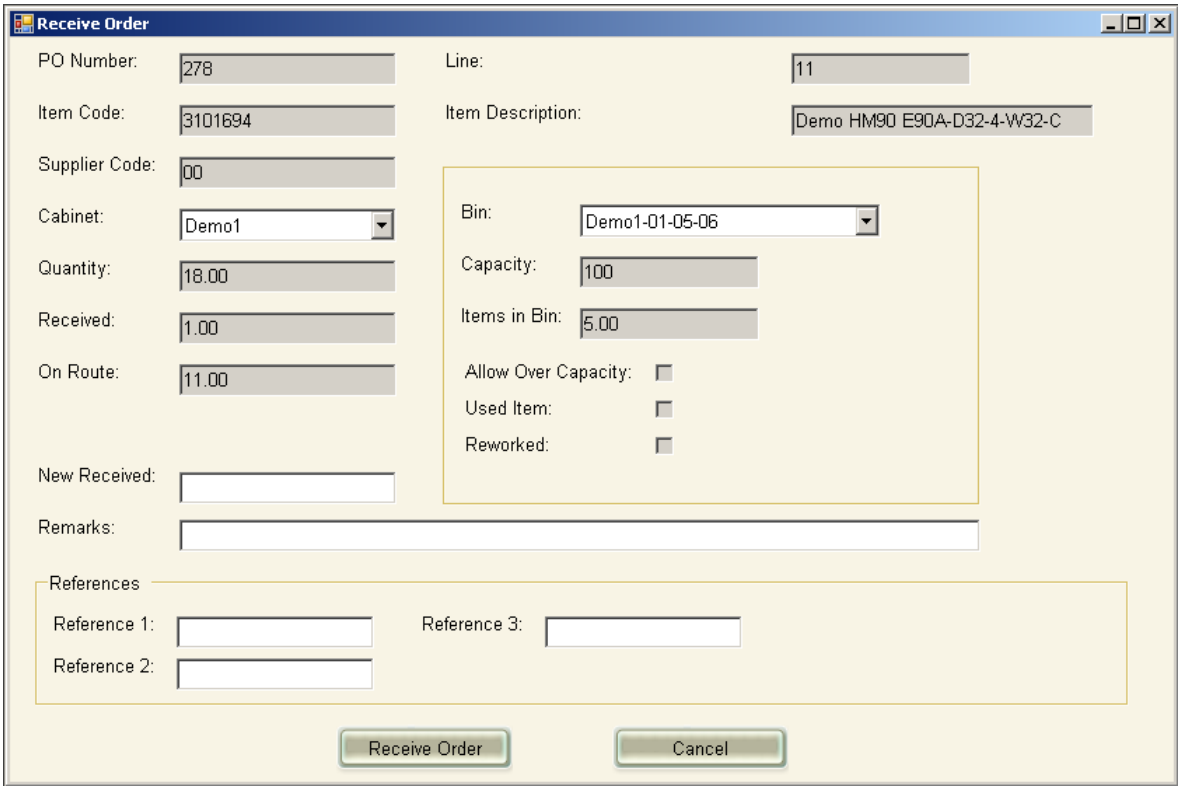
8.1.2 Receive with MATRIX-TM Order

This type of Receive is based on the open purchase orders in MATRIX-TM Manage. For receive without order or for receive based on the order created in ERP system, please refer to Chapter B: Receive with ERP Order (section 8.1.3).

1. Open "Menu: Order → Receive Order".

The screen "Open Orders" will appear displaying the list of all the order lines of all order types.

2. Select the requested order line and click the <Update> button (or double-click the line). The screen as following will appear:



Fields description:

Cabinet: Cabinet containing the item of the selected order line. If only one cabinet contains this item, this field will be disabled.

Bin: Bins in the selected cabinet that can receive this item by Receive Rules as described in Chapter B: Receive Rules (section 8.1.1). If only one bin can contain this item, this field will be disabled.

Quantity: The original quantity in the order line.

Received: The total quantity received so far for this order line.

On Route: This field is relevant only for Internal Orders. It informs how many pieces were issued for transfer and still were not received into the destination cabinet.

New Received: Insert here the quantity you now want to receive. The maximum quantity in the Internal Order line can be up to 'On Route' quantity.

Reference fields: The reference fields are displayed for supporting interface with ERP systems. The number of reference fields (0-4) depends on the System Option **111**.

3. In the 'Cabinet' and 'Bin' fields select the cabinet and bin into which the item will be received. If the bin is not assigned with "Allow Over Capacity", make sure that the current stock ('Item in Bin' field) and new stock ('New Received' field) together will not exceed the bin's Capacity.
4. Enter the received quantity in the "New Received" field and click the <Receive Order> button.

   If the quantity received is less than the quantity ordered, a question will appear asking whether to close the order line or not. If you want later to receive the remaining quantity, click **<No>**. Otherwise, click **<Yes>**.



Note: It is possible to receive more than the ordered quantity. See system option 105 - defined in "Over Receive Percentage".

5. Follow the changes done after confirming the order line update:

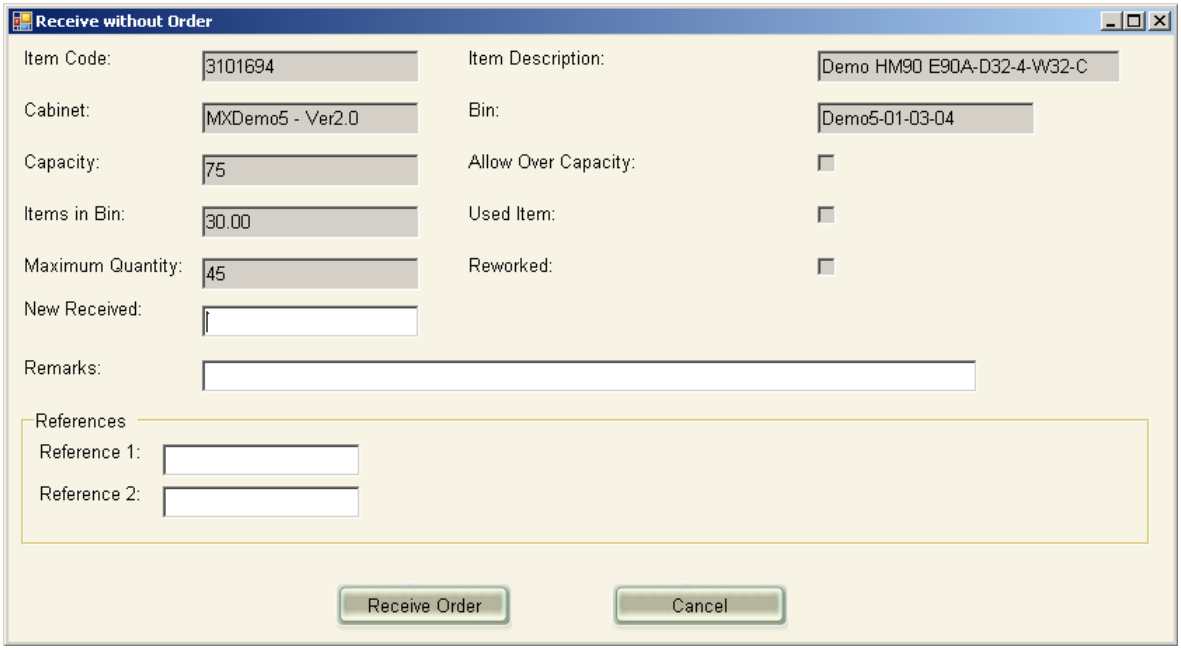
- In case of Standard or Rework order types, a **'Receive'** transaction is added to the list of transactions. In case of Internal Order, a **'Transfer'** transaction is created.
- The stock of item/bin is updated with the received quantity.
- Order Maintenance: In case of Standard or Rework orders, the relevant order line is changed to 'Partial' or 'Closed' status and the ordered quantity is reduced. In case of Internal Order, the relevant order line is changed to 'Closed' or remains 'On Route' until all the quantity on route is fully received.
- Order Maintenance: The received quantity will be added to the "Received Quantity" in the order line (Tab: Details) and to the bin entity (Tab: General).
- Remark added to the "Remarks" field will appear in the "Remark" tab in the relevant order line.

8.1.3 Receive without Order

This type of Receive is based on the orders created in ERP system or no orders at all. For receive based on order created in MATRIX-TM Manage, please refer to Chapter B: Receive with MATRIX-TM Order (section 8.1.2).

1. Open "Menu: Order → Receive without Order".
   The screen "Receive without Order" will appear displaying all the **bins** that have free space to store items according to its capacity and according to Receive Rules as described in Chapter B: Receive Rules (section 8.1.1).
   The **'Maximum Quantity'** column represents the maximal number of items that can be received. When the maximum quantity = 9,999,999.00, it means that the bin was marked with 'Allow Over Capacity' and therefore there is no limit on the items can be received.

2. Select the desired bin and click the <Update> button (or double-click the line). The screen as following will appear:



Fields description:

Item / Cabinet / Bin disabled fields: All the data regarding the selected bin.

Maximum Quantity: The maximum quantity that can be received.

New Received: Insert here the quantity you now want to receive, up to the maximum quantity.

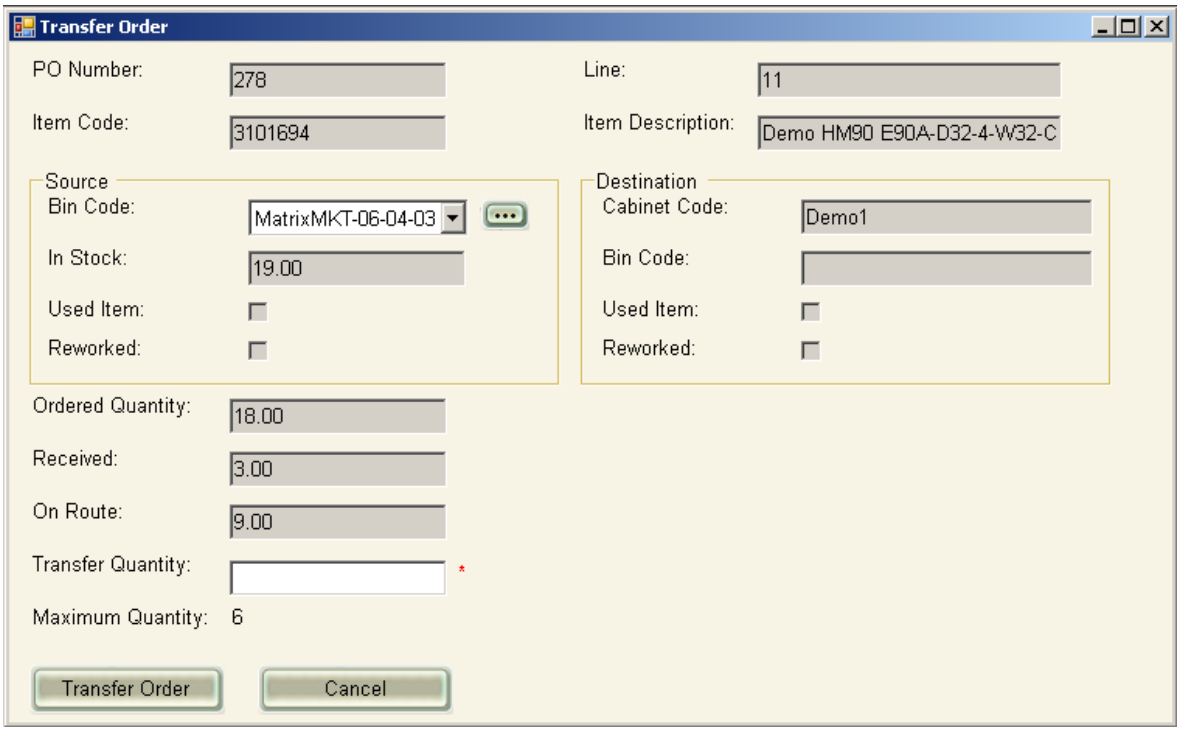
Reference fields: The reference fields are displayed for supporting interface with ERP systems. The number of reference fields (0-4) depends on the System Option **111**.

3. Enter the received quantity in the "New Received" field and the references to the order in ERP system and click the <Receive Order> button.
   The stock of item/bin will be updated with the received quantity and **'Receive'** transaction will be added to the list of transactions, The reference fields, if entered will show in the transaction.

8.2 TRANSFER (Internal) Order

This module enables transferring items from a cabinet to the receiving (ordering) cabinet. It requires an open Internal Order that contains a list of items and quantities that need to be transferred. For more information see Chapter B: Orders (Purchase, Rework and Internal) (section 7).

1. Open "Menu: Order → Transfer Order".
2. Select the order line of item that you need to issue and click the  <Update> button (or double-click the line). The screen as following will appear:



The 'Destination' frame in the above screen displays data regarding the cabinet and bin for which the order line was created and which is going to receive the item. The 'Source' frame displays data regarding the bins from which the items can be transferred.

Fields description:

Destination Cabinet Code: The cabinet for which the item was ordered.

Destination Bin Code: The bin for which the item was ordered. If none, the order was created on the Cabinet level.

Source Bin Code: The list of bins that contain available stock for transfer.

Ordered Quantity: The quantity ordered for the destination cabinet.

Received: The quantity received by Receive process.

On Route: The quantity that was issued for transfer and still was not received by the Destination Cabinet.

Transfer Quantity: The quantity to be transferred to the Destination Cabinet not exceeding the 'Maximum Quantity'.

Maximum Quantity: The maximum quantity that may be transferred considering the current stock in the selected bin and the quantity left to

transfer (in the above example, (18-3-9) = 6 < 19, the maximum quantity will be 6)).

3. Select the bin from which to issue the item.
4. Define the quantity that you want to issue for transfer in the "Transfer Quantity" field and click the <Transfer Order> button.
5. Follow the changes done after confirming the order line update:

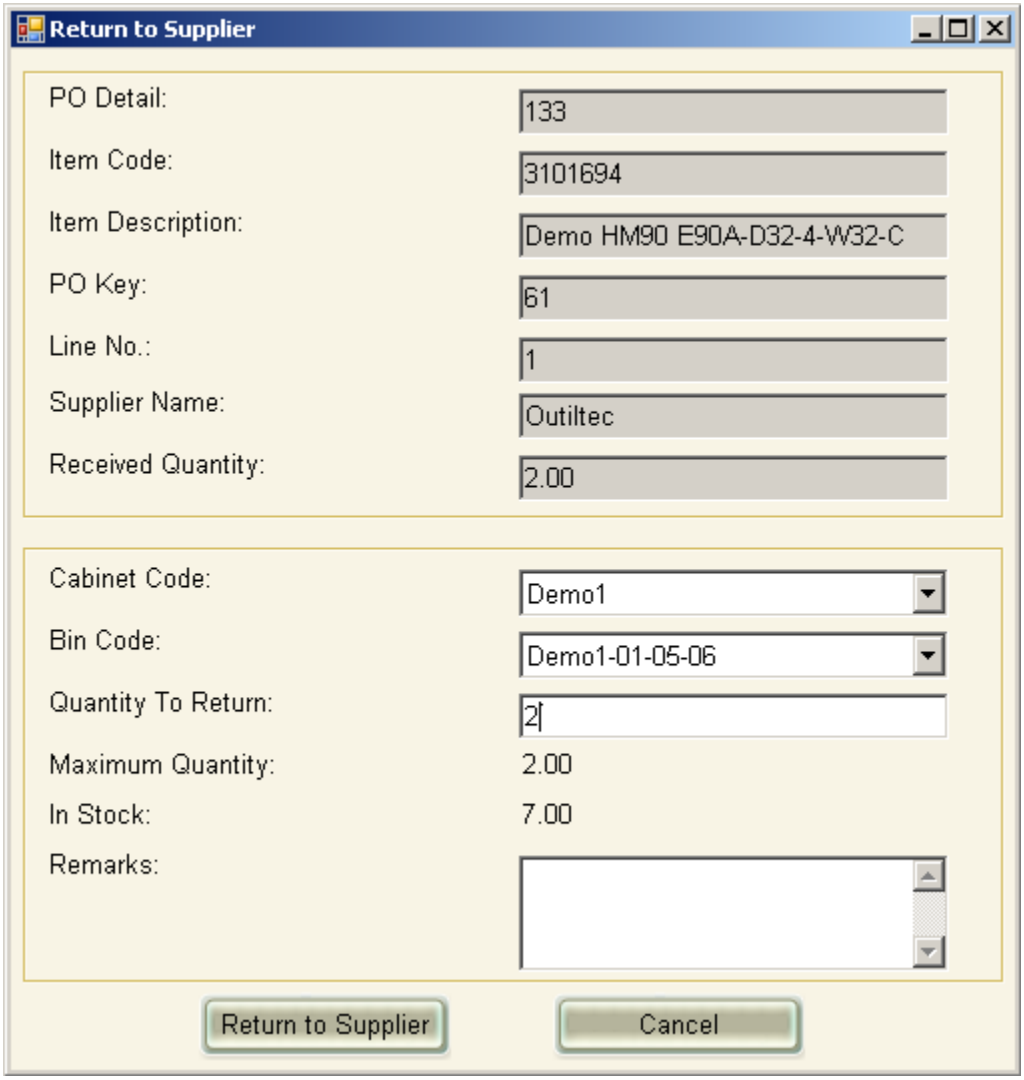
- A **'Transfer -'** transaction (with negative Transaction quantity) with the logged-in user is added to the list of transactions.
- The stock of item/bin is reduced by the transferred quantity.
- Order Maintenance: The relevant order line is changed to 'On Route' status and the ordered quantity is reduced.
- Order Maintenance: The transferred quantity will be added to the "On Route" quantity in the order line (Tab: Details) and will be reduced from the bin entity (Tab: General).

6. Continue with "Receive" process at the cabinet which created the Internal Order.

8.3 RETURN Order to Supplier

If there is a need to return items to a supplier because of damage, the wrong item was supplied or for any other reason, the user has an option to return the item to the supplier. The return option is available only if the order line was received into stock.
Maximum quantity for return is the quantity that was received in the order line.

1. Go to: "Menu: Order → Return to Supplier".
2. Search for the order line that you want to return and click the  <Update> button or double-click it. The following screen will be displayed:



This screen displays in the 'Cabinet Code' and 'Bin Code' fields all the cabinets and bins respectively that contain the item of the selected order line for return. If only one cabinet or bin contains this item, these fields will be disabled.

3. In the 'Cabinet Code' and 'Bin Code' select the cabinet and bin from which you want to return the items.
4. Fill in the quantity that you want to return up to the 'Maximum Quantity' (the lesser of the stock in the bin and the quantity previously received); the return reason in the remark field; and click the <Return to Supplier> button.

8.4 RETURN Items to Stock

This screen allows you to return used items to the cabinet for reuse.

8.4.1 Return Rules

The 'RETURN' option for item depends on the **Item Type**, **Bin Type**, **System Option 905** and the combination between them. In the following table, see the cases when the 'Return' option is available and when it is not.

System Option 905	Bin Type		RETURN option by Item type			
	Reworked	Used	Expendable	Reworkable	Durable	Kit
NO			N/A			
		√	N/A	√	√	√
	√		N/A			
YES			N/A		√	√
		√	N/A	√	√	√
	√		N/A		√	√

Summary:

The Item Types that can be returned: all except Expendable.

The Bin Types that can accept those items for return:

- Used bin can accept Durable / Kit / Reworkable item type with no other condition.
- New and Reworked bins can accept only Durable / Kit item type and only if system option 905 = 'Yes'.

See more information in Chapter B: ITEM Life Cycle (section 5.4.4).

8.4.2 Return Item to Cabinet

In order to return a used item to stock, follow the next steps:

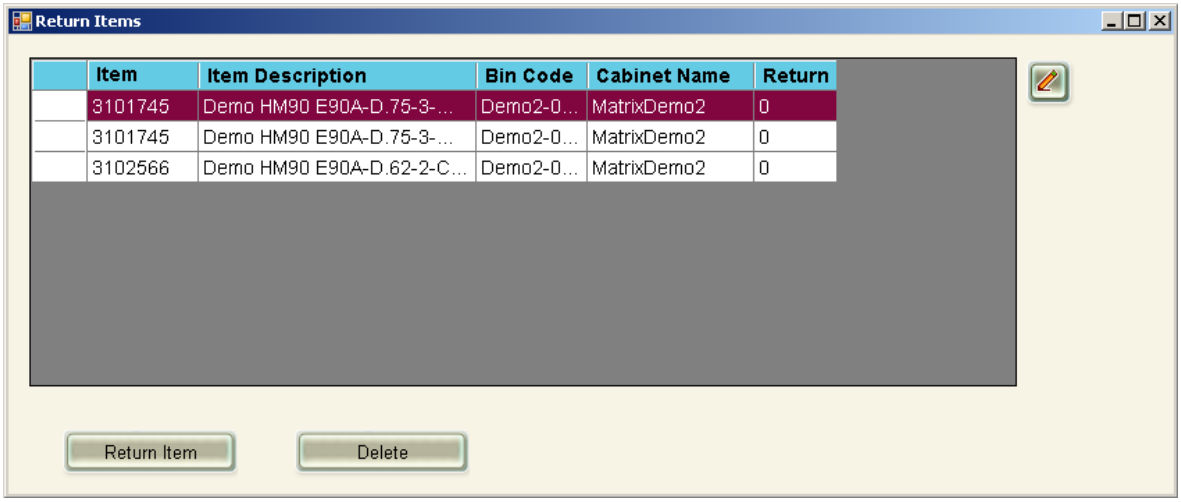
1. Open "Menu: Operations → Return". The "Return" search screen will appear and will display all the available positions for return.

Note: This screen will display only the items that can be returned and only the bins that can accept those items for return according to the previous section.

2. Select the item and bin to which you wish to return the used item and click the <Update> button on the Menu bar.

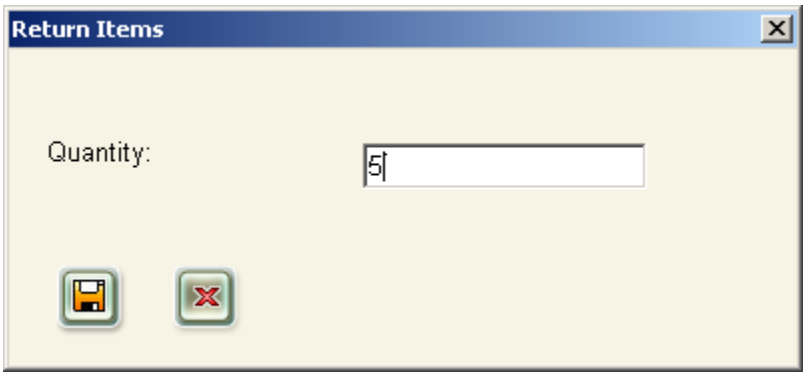
   If you wish to return items to more than one position, click the <CTRL> button on the keyboard and mark all required items (while choosing the items you must continue pressing on the <CTRL> button on the keyboard). At the end, click the <Update> button.

   The "Return Items" screen will appear with the requested item/s for return:



If you don't wish to return some of the items, mark the line in the grid and click the <Delete> button to remove the record from this screen.

3. Select the line for changing quantity for return and click the <Update> button on the right side of the grid. The following screen will appear:



4. Fill in the quantity you wish to return and click the <Save> button.
5. Click the <Return Item> button to confirm return of all the quantities. The stock will be updated and a 'Return to Cabinet' transaction will be recorded in the system for each record.

Note: You can return items to the bin according to the bin capacity limits.

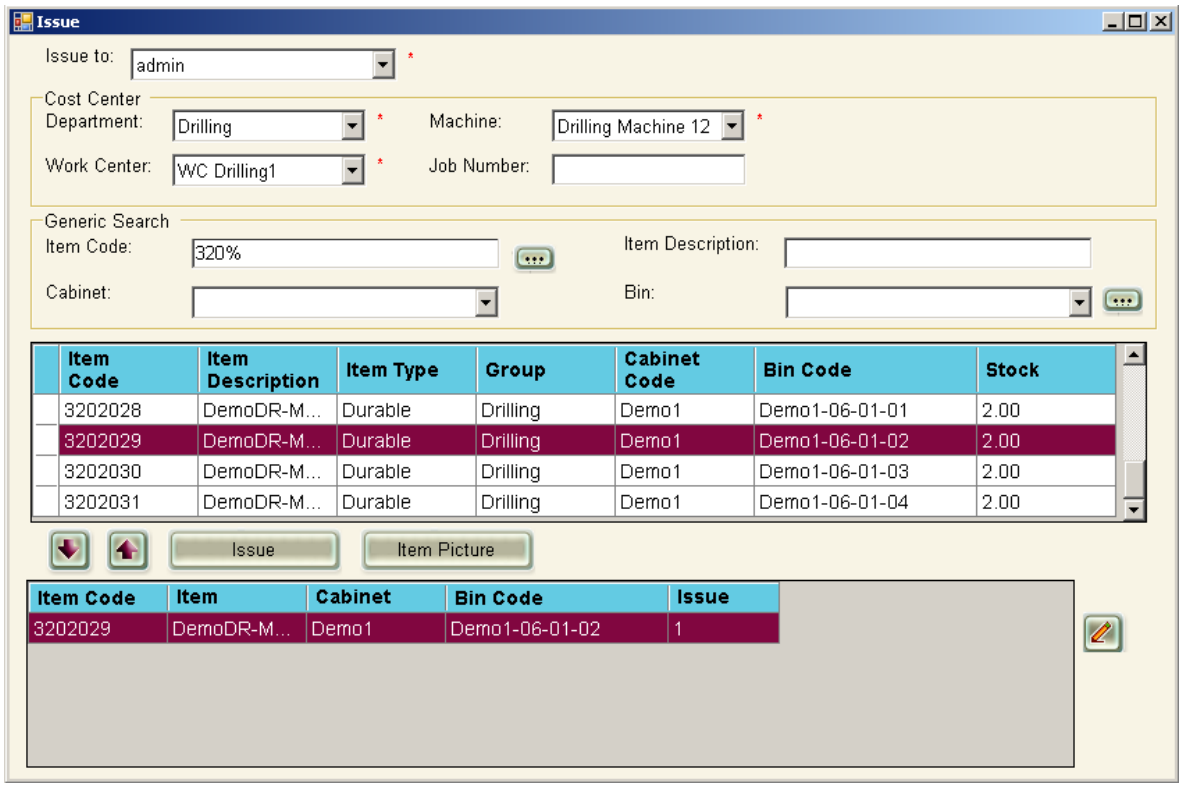
8.5 ISSUE Item

This screen allows the user to issue items from stock.

In order to display this screen choose "Menu: Operations → Issue".

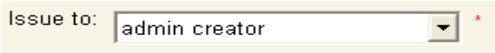
The screen will require the user to perform a number of steps before the issue:

- Choose employee who is requesting the issue (Issue to).
- Choose cost centers
- Search and Choose items
- Update quantities
- Operate issue process

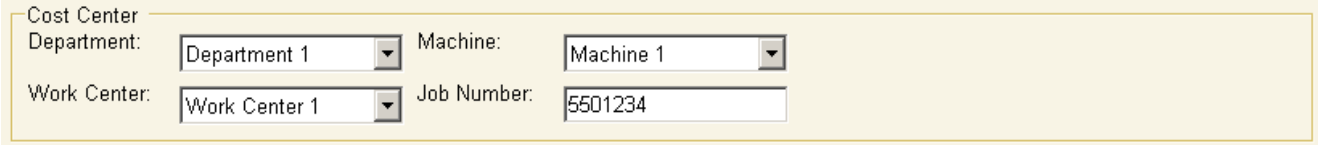

Issue
Issue to: admin
Cost Center
Department: Drilling
Machine: Drilling Machine 12
Work Center: WC Drilling1
Job Number:
Generic Search
Item Code: 320%
Item Description:
Cabinet:
Bin:
Item Code | Item Description | Item Type | Group | Cabinet Code | Bin Code | Stock
3202028 | DemoDR-M... | Durable | Drilling | Demo1 | Demo1-06-01-01 | 2.00
3202029 | DemoDR-M... | Durable | Drilling | Demo1 | Demo1-06-01-02 | 2.00
3202030 | DemoDR-M... | Durable | Drilling | Demo1 | Demo1-06-01-03 | 2.00
3202031 | DemoDR-M... | Durable | Drilling | Demo1 | Demo1-06-01-04 | 2.00
Issue
Item Picture
Item Code | Item | Cabinet | Bin Code | Issue
3202029 | DemoDR-M... | Demo1 | Demo1-06-01-02 | 1

Choose employee requesting the issue:

Choose the employee from the list:



Choose cost centers:



In this section you should choose the cost centers to be associated with issuing the item.

The cost centers are determined in a hierarchical display order.

Example in screen: Department → Work center → Machine → Job number.

Note: The cost centers in the above picture are an example only.

The system manager can define up to four different cost centers that will appear in the system. You can update their names, their numbers and the order in which they will appear.

Search items:

In this screen the user selects the items and bins from where he wishes to issue.

Use the following search fields in order to locate the item and bin for issue.

Item Code:	Search by edit (use %value% for partial value) or by browse button.
Item Description:	Search by edit (use %value% for partial value).
Cabinet:	Search by list.
Bin:	Search by list or by browse button.

Click the <Search> button on the Menu bar.

You can also display the item picture by clicking the Item Picture <Item Picture> button.

Choose items to be issued:

Mark the item and click the <Down> arrow button. This operation will move the items to the bottom table (issue list).

Note: If the quantity for issuing is not positive or the item is in a bin marked 'Not Active', then after clicking the <Down> arrow button, a system message will appear and the record will be marked red.

Note: The grid for item selection displays constant and customized columns. If the columns **'Additional Item Code'** and **'Additional Item Description'** do not appear in the grid, you can add them by setting System Option **1011**. Please be aware that this setting will affect the display on TOUCH module as well.

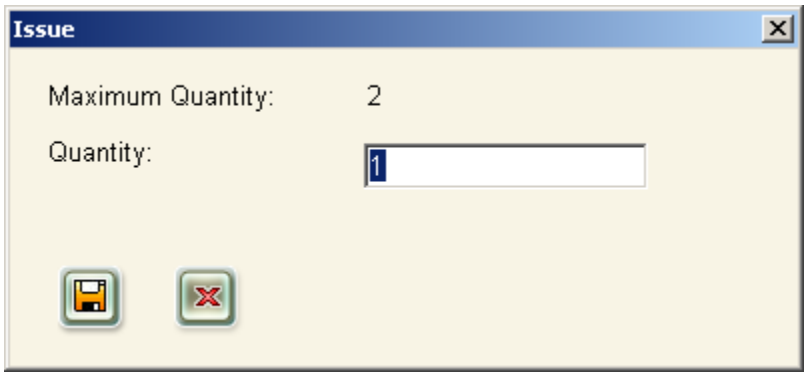
Remove item from issue list:

Mark the item and click the <Up> arrow button. This operation will remove the items from the bottom table (issue list).

Update quantity to be issued:

The fields at the bottom table are for display only except the last field “Issue quantity” which must be completed.

Select the line and click the <Update> button on the right side of the grid.
The following screen will appear:



Fill in the quantity you wish to return and click the <Save> button.

Note: You can only issue a quantity that complies with the "Default Issue Quantity".

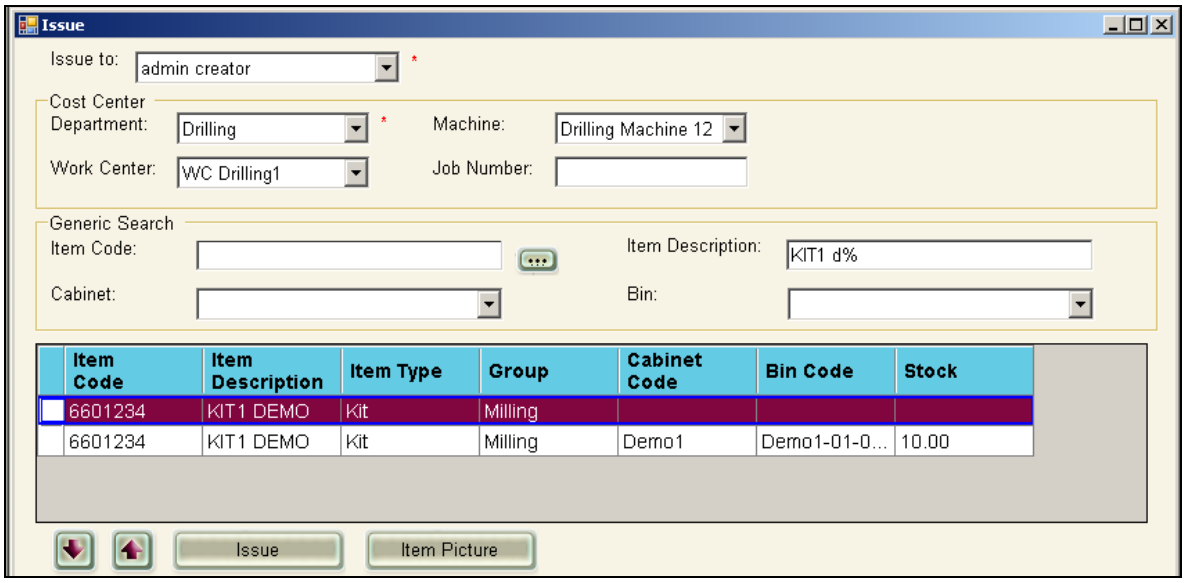
Processing the issue:

After all items requested for issuing have been moved to the bottom table (issue list) and the quantities were set, click the <Issue Item> button Issue Item. This operation will update the stock quantities and create an 'Issue' transaction.

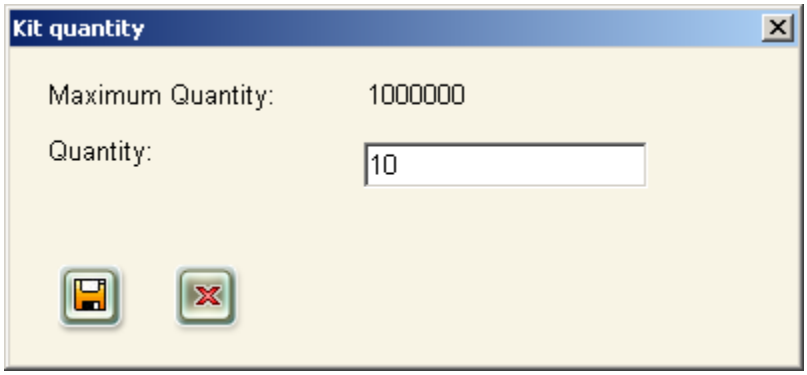
8.5.1 Issue Kit

Open: "Menu: Operations → Issue".

The first step is to find the kit you wish to issue. It is a good habit to start the description of a kit with the text "KIT" on the item definition which will make it easier to text search for a kit. In the top part of the screen you will see the items which are the result of the selection. Please notice that in the example below the first line (outlined in blue) has no cabinet or bin. This means that each item comprising the Kit will be issued from its **respective bin**. The second line in the example below is an assembled kit. If you chose to issue this line, all the items comprising the Kit will be issued from **one bin**.



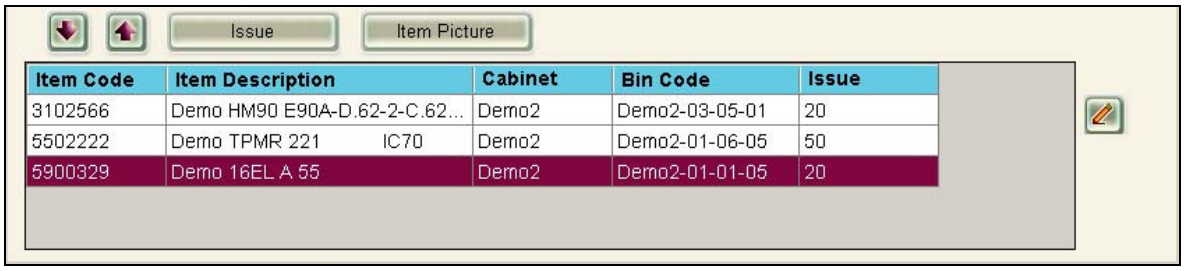
Once a kit item is chosen with the  arrow down (in our example the blue line), the following screen pops up and you will be asked to input the quantity for the kit.



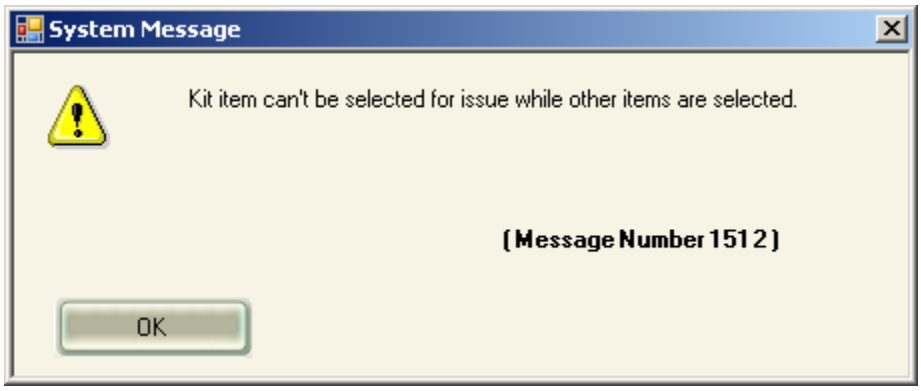
Once the  <Save> button is clicked, all the component items' quantities are multiplied by the quantity of the kit. The resulting components list with their calculated quantities is located in the bottom grid, ready for issue.

MATRIX-TM will choose the component items according to a method which minimizes the issued levels (Drawers in MATRIX type cabinet) and maximizes storage efficiency by choosing the smallest bin which supplies the needed quantity.

You can manually change the quantity of a kit component.

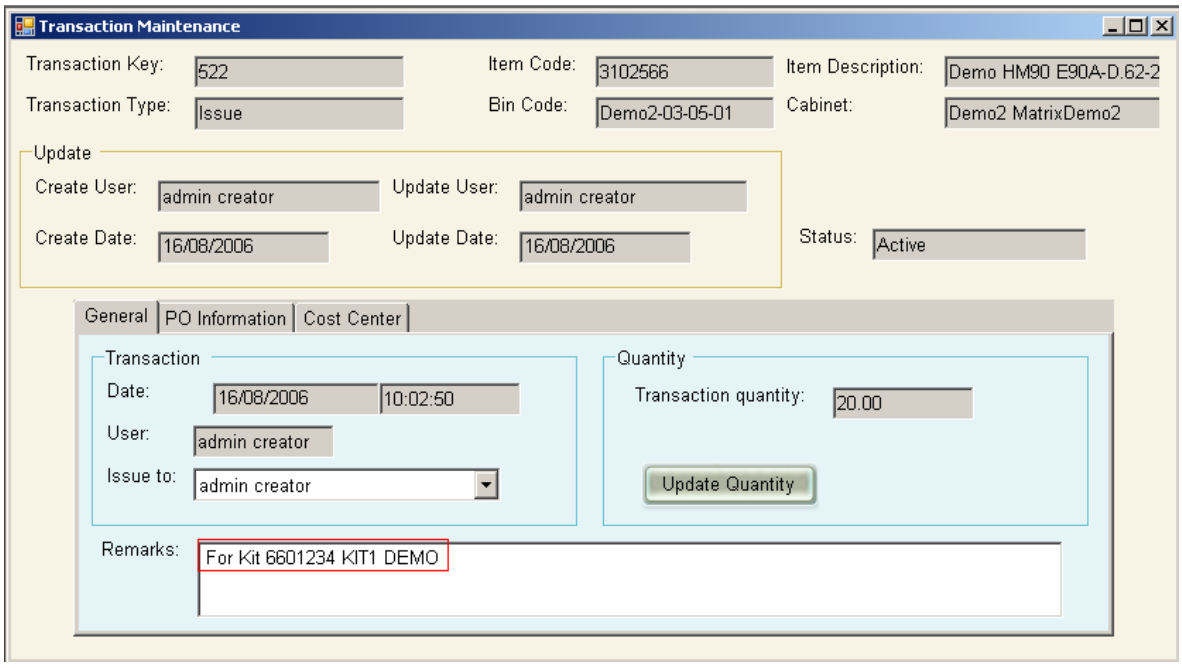


You cannot add other items to the lower grid if it is full with components.
If you try to add a new item to the bottom screen, the following message will appear:



Once the 

<Issue> button is clicked, the kit components will be issued as normal. Stock will be subtracted and 'Issue' transactions will be added to the transactions list for each component item. Those transactions will contain a remark referring to the kit (indicated in red).


Transaction Maintenance
Transaction Key: 522
Item Code: 3102566
Item Description: Demo HM90 E90A-D.62-2
Transaction Type: Issue
Bin Code: Demo2-03-05-01
Cabinet: Demo2 MatrixDemo2
Update
Create User: admin creator
Update User: admin creator
Create Date: 16/08/2006
Update Date: 16/08/2006
Status: Active
General
PO Information
Cost Center
Transaction
Date: 16/08/2006 10:02:50
User: admin creator
Issue to: admin creator
Quantity
Transaction quantity: 20.00
Update Quantity
Remarks: For Kit 6601234 KIT1 DEMO

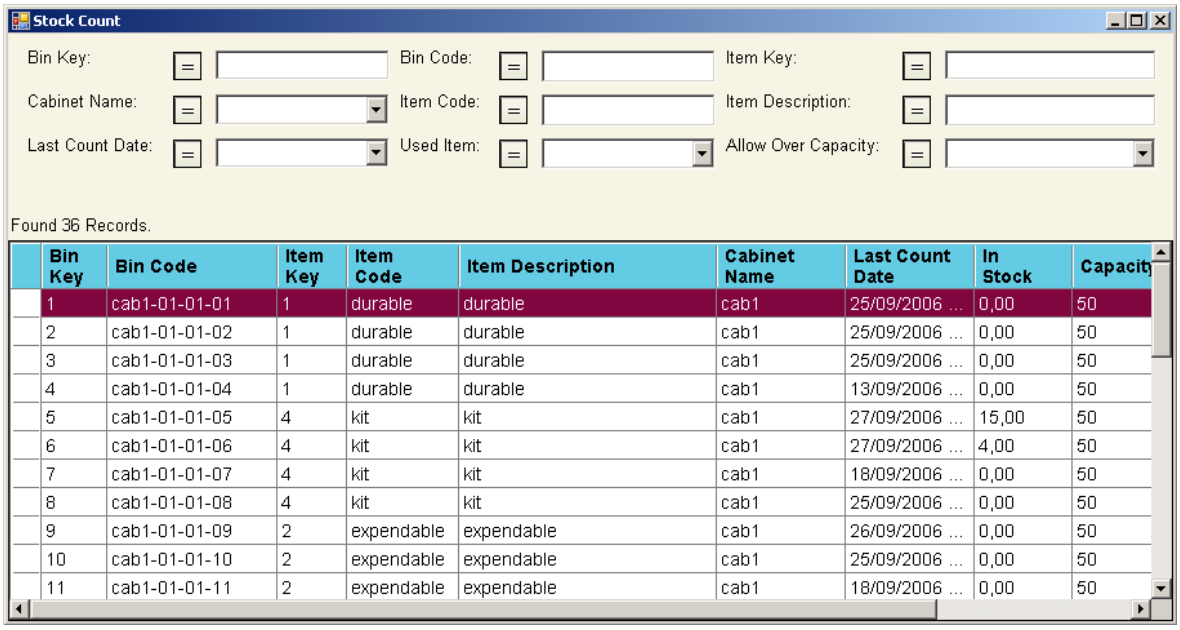
8.6 STOCK COUNT

This screen enables you to perform a stock count in the system.

In order to continue with the Stock Count procedure, follow these steps:

1. In the main menu go to "Menu: Operations → Stock Count".

   The "Stock Count" screen will appear as follow:

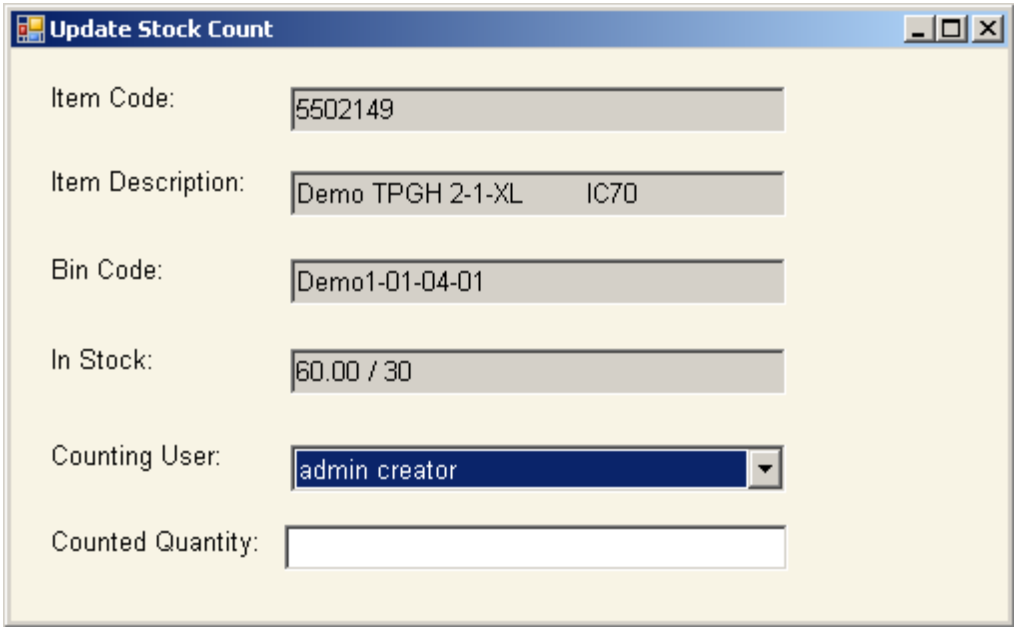


Bin Key	Bin Code	Item Key	Item Code	Item Description	Cabinet Name	Last Count Date	In Stock	Capacity
1	cab1-01-01-01	1	durable	durable	cab1	25/09/2006 ...	0,00	50
2	cab1-01-01-02	1	durable	durable	cab1	25/09/2006 ...	0,00	50
3	cab1-01-01-03	1	durable	durable	cab1	25/09/2006 ...	0,00	50
4	cab1-01-01-04	1	durable	durable	cab1	13/09/2006 ...	0,00	50
5	cab1-01-01-05	4	kit	kit	cab1	27/09/2006 ...	15,00	50
6	cab1-01-01-06	4	kit	kit	cab1	27/09/2006 ...	4,00	50
7	cab1-01-01-07	4	kit	kit	cab1	18/09/2006 ...	0,00	50
8	cab1-01-01-08	4	kit	kit	cab1	25/09/2006 ...	0,00	50
9	cab1-01-01-09	2	expendable	expendable	cab1	26/09/2006 ...	0,00	50
10	cab1-01-01-10	2	expendable	expendable	cab1	25/09/2006 ...	0,00	50
11	cab1-01-01-11	2	expendable	expendable	cab1	18/09/2006 ...	0,00	50

2. Fill in the required fields to filter the search, or leave all fields blank to search all records. Click the <Search> button on the Menu bar.

3. Mark the bin record you wish to update and click the <Update> button on the Menu bar (or double-click the record).

   The "Update Stock Count" screen will appear as follow:



4. Select “Counting User” from the list.

   In the “Counted Quantity” field, fill in the quantity that was counted.

Note: The counted quantity cannot exceed the defined capacity for the counted bin, unless the bin was assigned with the "Allow Over Capacity" check box.

5. Click the <Save> button on the Menu bar.

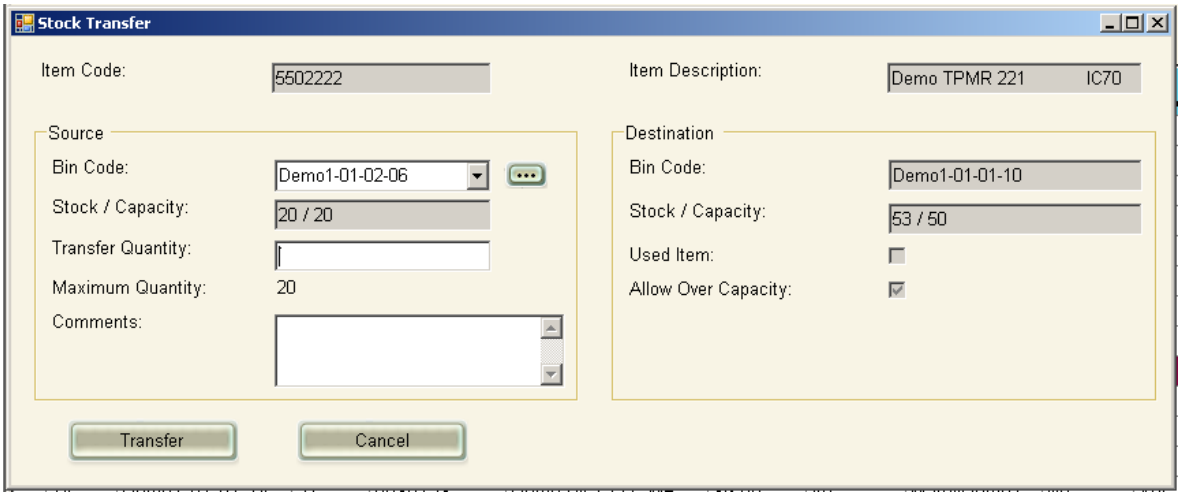
The new stock quantity will be updated and the "Last Count Date" in the search screen will also be updated for the specific bin counted.
A "Stock Count" transaction will be recorded in the transactions list.
In the "Bin Maintenance" screen in the "General" Tab, the "Last Count Date" will be updated for each record, even where the actual quantity of items counted has not changed.



8.7 STOCK TRANSFER

This screen enables you to transfer items from bin to bin by the following instructions:

1. Go to "Menu: Operations → Stock Transfer".
   The screen will display a list of bins with item definition that have not reached their full capacity (or the bins assigned with 'Allow Over Capacity').
2. Select the destination bin to receive stock from another bin with the same item definition and click the <Update> button (or double-click the line).
   The following screen will be displayed:



   The item / bin that you have selected are displayed on the "Destination" side.
   The bin/s from which you can transfer the item are displayed on the "Source" side in the "Bin Code" list. If there are no bins from which to transfer, the displayed list will be empty and the <Transfer> button will be disabled.
3. Select from the "Source" side the bin from which to transfer the item, either from the combo box or by using either the <…> button.
4. Fill in the quantity and click the <Transfer> button.
   This will create two 'Transfer' transactions under the logged in user name: one for source bin and the other for the destination bin.
5. Make the physical transfer of the items from the Source to the Destination bin by the "Count Bins" operation (or "Adjust Item") in the TOUCH module without adjusting quantities.

8.8 Recorded Stock Transactions

The transactions screen lists all the stock transactions recorded in the system.
You can access this screen via the "Menu: Operations → Transaction".

The following types of transactions are defined in the system:

Adjust Bin Quantity: Created with (+) or (-) quantity. In Manage, created by changing quantity in the 'Items in Bin' field on the 'Bin Maintenance' screen. In Touch, created by 'Adjust Item' module,

Issue *: Created with (+) or (-) quantity – with (+) when issuing item and with (-) when reversing transaction. In Manage, created by 'Issue' functionality and reversed by <Update Quantity> on the 'Transaction Maintenance' screen. In Touch, created by 'Issue' module and reversed by 'Transaction' module.

Receive: Created with (+) or (-) quantity – with (+) when receiving item and with (-) when returning to supplier. In Manage, created by 'Receive Order' functionality and reversed by 'Return to Supplier' functionality. In Touch, created by 'Receive' module and cannot be reversed.

Return To Cabinet: Created with (+) quantity. In Manage, created by 'Return' functionality. In Touch, created by 'Return' module.

Send To Rework: Created with (+) quantity. In Manage, created by sending Rework order to supplier. In Touch, cannot be created.

Stock Count: Created with (+) or (-) quantity. In Manage, created by Stock Count functionality. In Touch, created by 'Count Bins' module,

Transfer: Created with (+) or (-) quantity – with (-) when issuing item for transfer and with (+) when receiving item to its destination. In Manage, created by 'Stock Transfer' functionality or by 'Transfer Order' / 'Receive Order' functionalities. In Touch, created by 'Transfer Order' and 'Receive Order' modules.

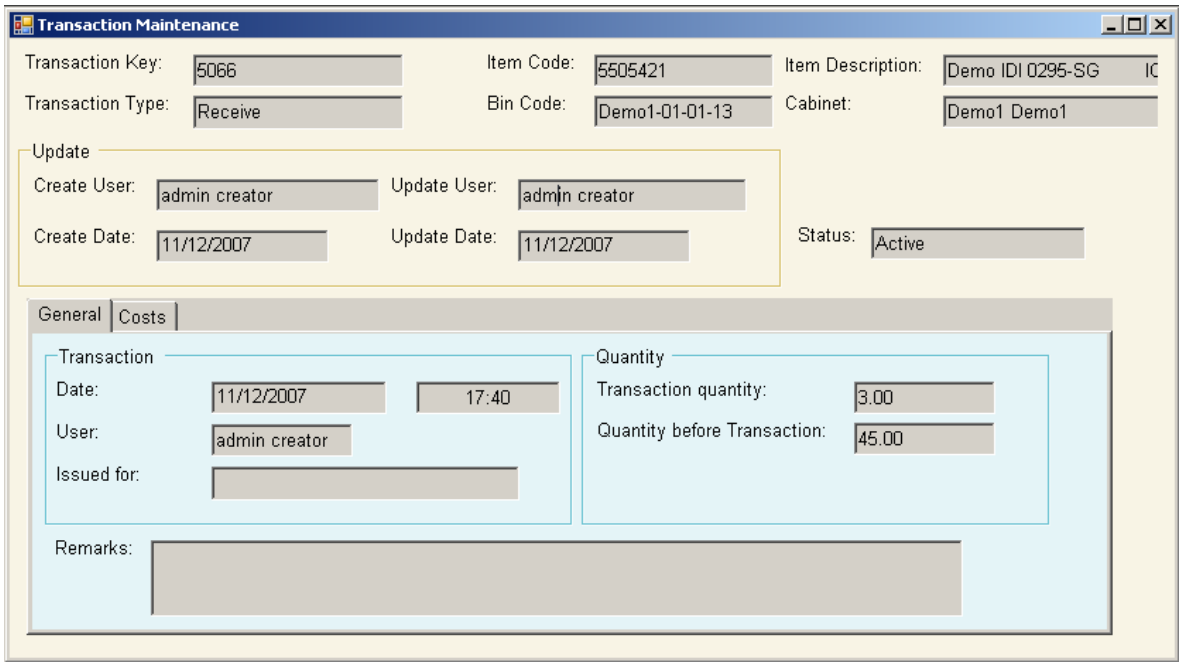
Zero Issue: Created with 0 quantity. In Manage, cannot be created. In Touch, created by <Alert> option in the 'Issue' module.

Note: Only an **Issue** transaction can be modified by the user.
For more details, continue following here the instructions.

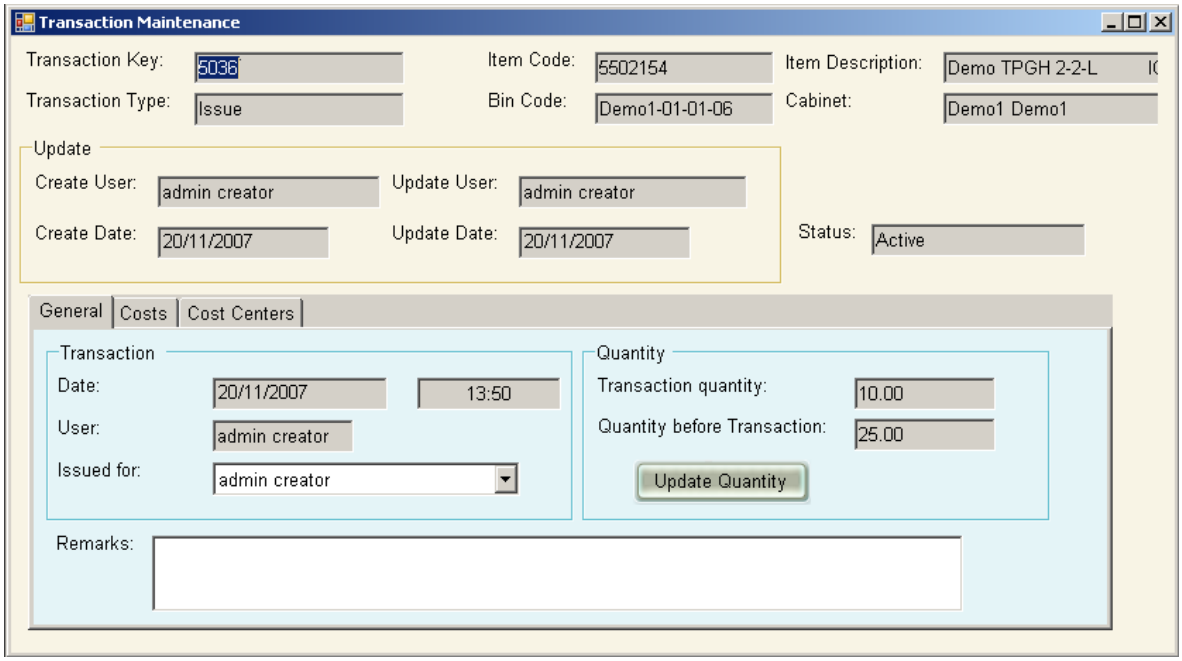
Transaction Maintenance

In order to view transaction details, select a transaction from the list and click the <Update> button from the Menu bar.
The "Transaction Maintenance" screen will be displayed.
In the upper part of the screen, you can view the following transaction data: Transaction Key; Transaction Type; Item Code; Item Description; Bin Code and Cabinet.
In the middle part of the screen you see the User who created the transaction and the date the Transaction was created. Details of the User who last updated the transaction are also recorded along with the date. In the Status field, the status of the transaction is recorded.
In the lower part of the screen, there are three subject tabs: General; Costs; and Cost Center (available only for Issue transactions).

Maintenance screen for any transaction type except ISSUE:



Maintenance screen for ISSUE transaction:



Note: Compared to the "Transaction Maintenance" screen of the other transaction types, on the screen of **Issue** transactions some of the fields are enabled in order to allow the user to modify the transaction details. Also the <Update Quantity> button and the "Cost Centers" tab become activated.

Note: Updating a transaction, especially the quantity, must be carried out carefully.

- Updating the **Transaction data** in following fields – **Issued for**, **Remarks**, **Transaction Value**, **Consignment** and **Cost Centers** – will cancel the original transaction, and create a new active and updated transaction. The new transaction will include in the relevant field a code for the canceled transaction for tracking purposes.

- Updating the **Quantity** of the transaction will create a new active transaction with the amount which was added or subtracted from the previous quantity. The new transaction will include in the relevant field a code for the previous transaction (which is also active) for tracking purposes.

- Updating transaction data including modifications to quantities will create two new transactions:
  - Transaction with the updated parameters without updating the amount, so that the original record is canceled.
  - Transaction with the updated parameters and the amount added or subtracted.

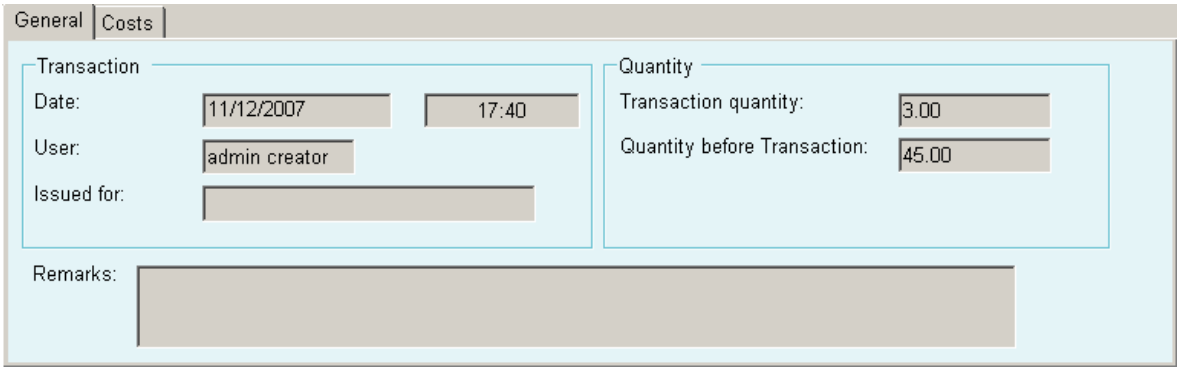
- Changing an Issue transaction quantity will change the stock of the bin; therefore the physical stock in the bin must be also taken out.

8.8.1 Tab: General

This tab displays the general transaction details: date and time of the transaction etc…

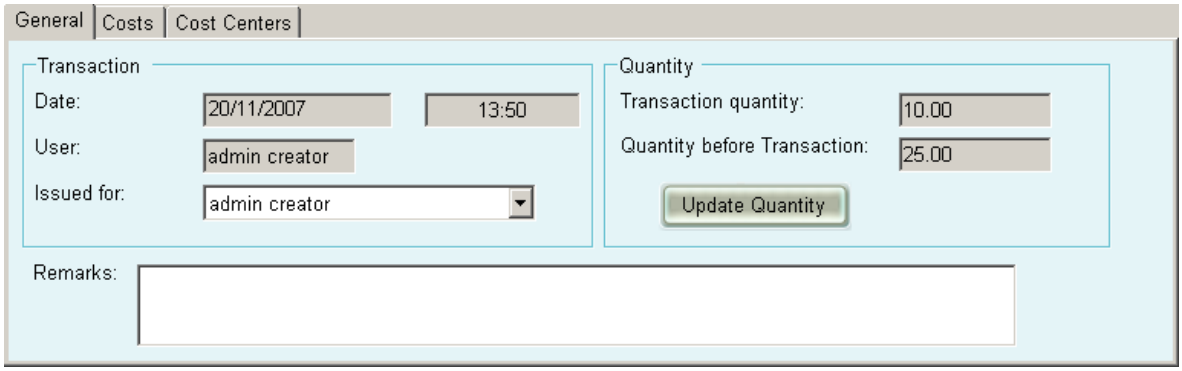
For any transaction type except ISSUE:

The tab does not enable to edit fields.



For ISSUE transaction:

The tab enables to edit **Issue for** field (the name of the person to whom an item was issued), **Remarks** field and to Update transaction quantity by <Update Quantity> button.



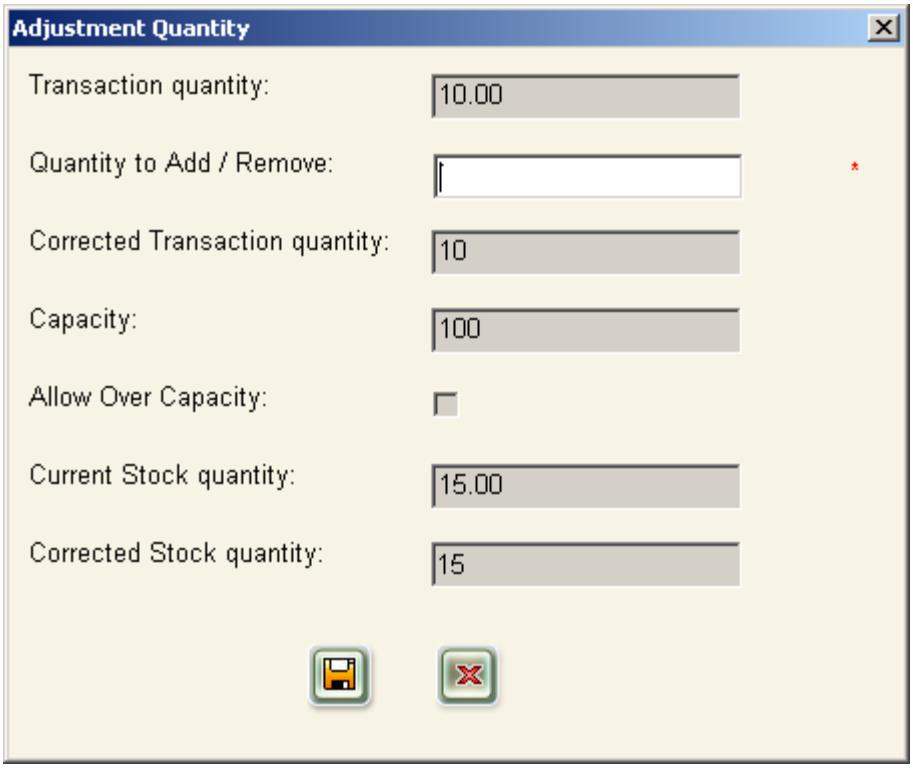
To update fields, edit value and click the <Save> button on the Menu Bar.

Update Quantity:

On the right hand side of the "General" tab, appears the Transaction Quantity. To modify this, follow the next steps.

Note: Only **Issue** transactions support changing the quantity.

1. Click the <Update Quantity> button. The "Adjustment Quantity" screen (below) will then appear.



2. Fill in the "Quantity to Add / Remove" field.
   For example, if you need to cancel issue of 2 pieces from 10 issued pieces, insert '-2'. The "Corrected Transaction quantity" and "Corrected Stock quantity" fields will be automatically updated.
3. To confirm the change, click the  <Save> button.
   To cancel, click the  <Exit> button.
4. After the update quantity operation the stock in the bin is changed, so the physical stock of the bin must be also taken out. In order to take out the items or put them back physically into the cabinet, use the "Adjust Item" option (or "Count Bins" option) on the cabinet TOUCH module; open the bins and take the items out **without adjusting quantities**.



Remember! The original transaction is not changed - a new transaction is created that will reflect the difference in quantity resulting from the change.

8.8.2 Tab: Costs

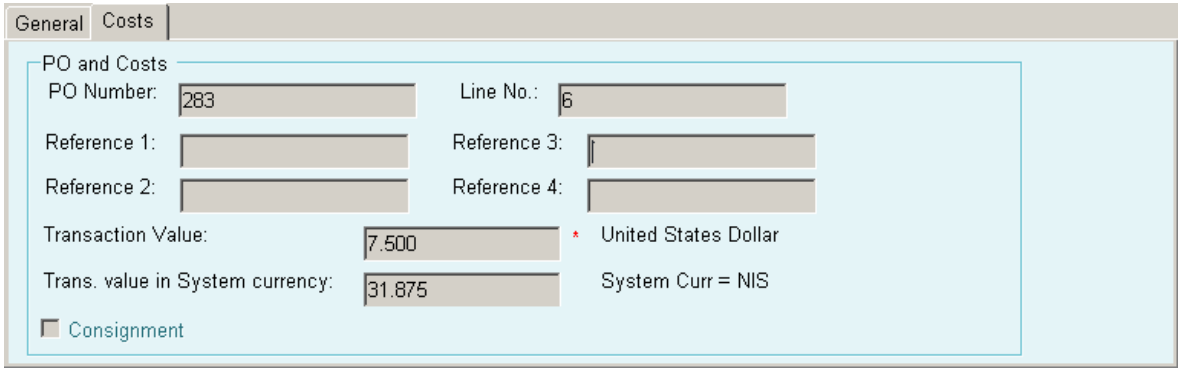
This tab displays the following data for the transaction:

PO number:	If it is a 'Receive' transaction, this field will display the Order number. Otherwise, no value will be shown.
Line No.:	If it is a 'Receive' transaction, this field will display the line number from the order. Otherwise, no value will be shown.
Reference fields:	The reference fields 1-4 display the input from 'Receive' transactions when working with Interfaces (in SAP for example, Reference 1 = PO Number in SAP, Reference 2 = Line No. in SAP).
Transaction value:	The calculated transaction cost in the chosen currency. If it is a 'Receive' transaction, the currency will be taken from Order. Otherwise, it will have (*) for general currency.
Trans. value in System currency:	The calculated transaction cost in the system's default currency (system option 203).
Consignment:	Indicates if it is a consignment transaction. Its value is copied from the related item / bin.

For more information about the calculated values see Chapter B: PRICES of Items and Transactions (section 8.9)

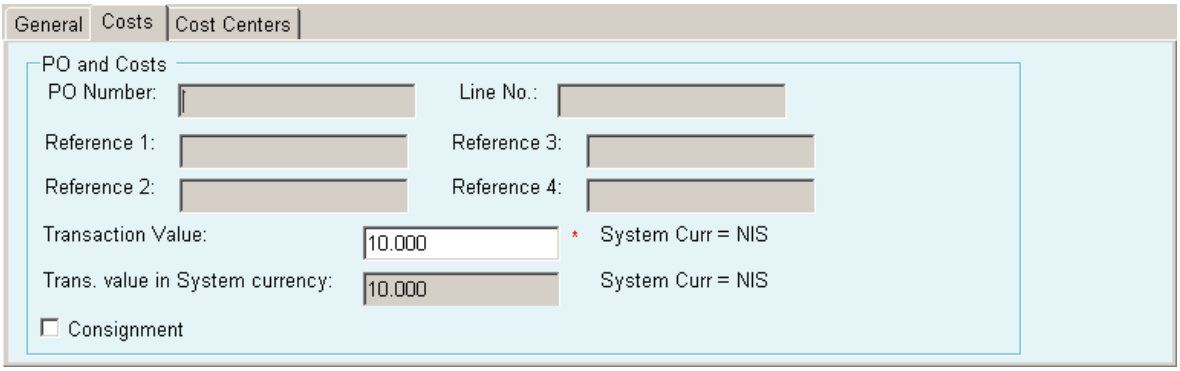
For any transaction type except ISSUE:

The tab does not enable editing fields.



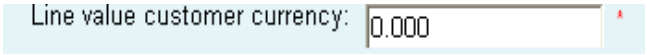
For ISSUE transaction:

The tab enables to edit **Line value customer currency** and the **Consignment** fields.



For issue transactions, it is possible to perform two types of updates in this tab:

1. To update the value of the transaction in the chosen currency:

   After modifying the entry click the <Save> button. This will update both the chosen currency and the default currency; and
2. To sign / ensign the "Consignment" check box.

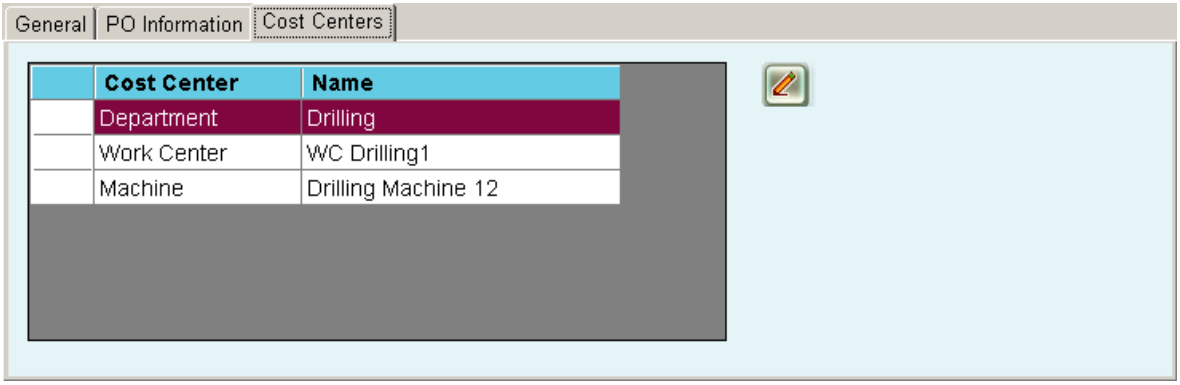
To confirm this change: click the  <Save> button.

8.8.3 Tab: Cost Center

Note: The "Cost Centers" tab is available only for **Issue** transactions.

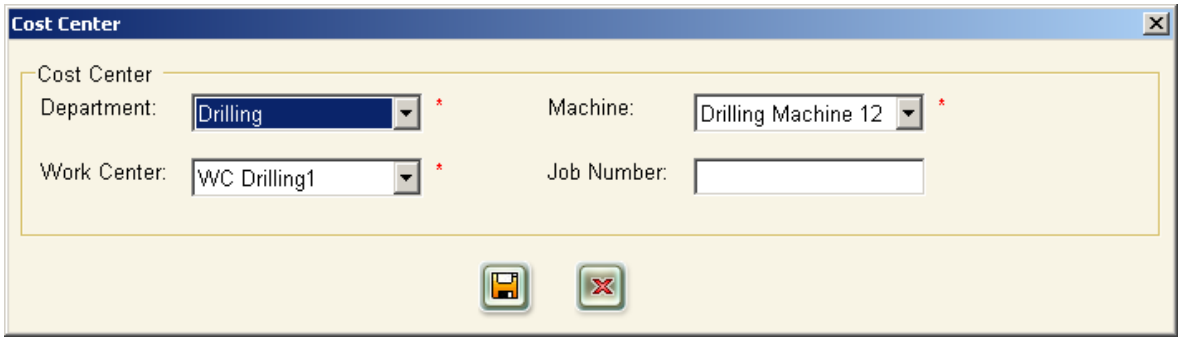
For ISSUE transaction:

The tab enables to edit **cost centers** fields.



In this tab you can View / Update the cost centers which have been allocated to the selected transaction. Every Issue transaction can be debited to a number of cost centers defined in the system according to the hierarchy (see Chapter B: ISSUE Item (section 8.5)).

In order to modify the cost centers, click the <Update> button.



Change the cost centers and confirm the change by clicking the <Save> button.

To cancel, click the <Exit> button.

8.9 PRICES of Items and Transactions

When a stock transaction is created in the system, the system calculates the value of the transaction depending on the **transaction type**, the **transaction quantity** and **source of the price**. The following descriptions describe all the price fields and their influence in the system.

Prices fields in MANAGE module:

- Issue Price, Bin Maintenance (not mandatory field)
- Item Price, Item Maintenance (not mandatory field)
- Supplier Price, Item Maintenance → Item Supplier (**mandatory** field)
- Average Cost, Item Maintenance (not editable field)
- Price of Reworked, Item Maintenance (not mandatory field)
- Unit Price, Order Maintenance

In the Order:

If the supplier of the order **does not supply** the item that is in the order, the price for the item in the order for field "Unit Price" will be taken by default from **Item Price**.
If the supplier of the order **supplies** the item that is in the order, the price for the item in the order for field "Unit Price" will be taken by default from **Supplier Price**.

In Receive transaction:

The transaction value will always take the price from the "Unit Price" field of the received order line.

In Issue transaction:

If "Issue Price" field has a value, the transaction value first will take this value.
If the bin is 'Reworked', it will calculate the transaction value by "Price of Reworked" field.
If none of the above and "Item Price" field has a value, it will take this field value.
Otherwise it will take the "Supplier Price" value.

In Return, Adjust Item, Count Bin and Transfer:

First, it will calculate the transaction value by "Average Cost".

If there is no value for "Average Cost" field, it will calculate the transaction value by "Item Price".
If there is no value also for "Item Price" field, it will use zero.

9 Reports

There are two types of reports supported by the MANAGE module:

- Basic reports and;
- Advanced reports

9.1 Advanced Reports

The MANAGE module supports building Advanced Reports for different records in the system, such as transactions, orders, usage etc.

Build report template:

All the advanced reports have a basic screen to create the reports with full customization, such as selecting which fields to include or exclude from the report, selecting which records to display by setting conditions and filters, selecting level of details (Total values only or Detailed list), selecting design for report (Chart or List) and more.
This section describes in detail how to build and run the advanced transactions reports, but these instructions can be used for any type of advanced report.

Schedule the report run:

After making all the definitions, the basic screen enables you to save this report template and to schedule its running. Therefore a system user, for example can receive by email the dynamic results of a report run at scheduled time. For more information see Chapter D: Report Scheduler (section 23).

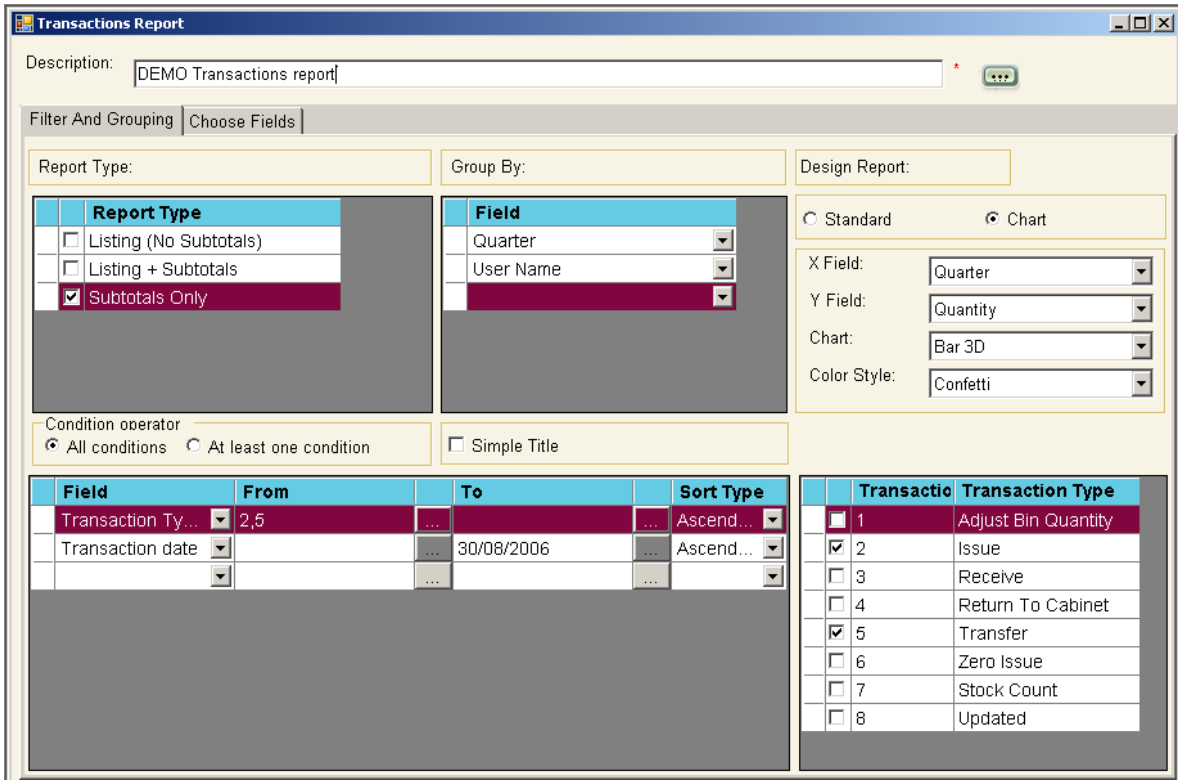
The available advanced reports:

- Transactions report;
- Issue / Return Comparison
- Orders report;
- Usage report;
- Stock report;
- Stock Shortage report;
- Item Additional Fields report;
- Bin Additional Fields report;
- Order Additional Fields report;

9.1.1 Creating a new report

1. Open the relevant advanced report screen.

For example, Advanced Transactions Report



2. **Set report name**: If you would like to save the report and use it later also, enter a name for the report in the "Description" field. Otherwise, for one-time run, it is not mandatory.

On the "Filter and Grouping" tab:

3. **Set report type**: Select one of the three options for "Report Type" by the following table:

Listing (No Sub-totals)	Listing + Sub-totals	Sub-totals Only
Includes **only detailed** report lines without sub-total lines.	Includes **detailed** lines and **sub-total** lines grouped by defined field.	Includes **only sub-total** report lines without detailed report lines.
The "Group By" option is **disabled**.	The "Group By" option is **enabled**. Need to select the field/s for grouping the subtotals.	The "Group By" option is **enabled**. Need to select the field/s for grouping the subtotals.
Chart design report is **enabled**.	Chart design report is **disabled**.	Chart design report is **enabled**.

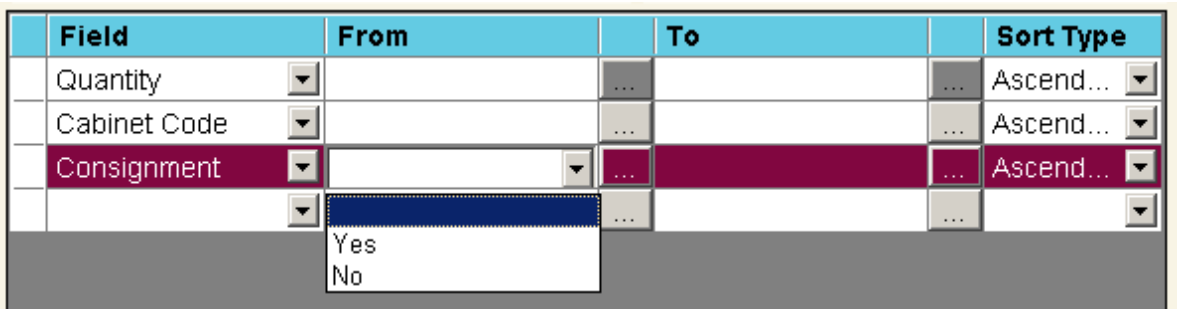
4. **Set grouping**: If you selected report type of **'Listing'** or **'Sub-Totals Only'**, select the field/s by which to group the sub-total lines in the "Group By" frame.

5. **Set report design**: Select one of the two options for "Design Report":
   Standard: The report will be displayed as a list of records (both in "MS-Excel file" and "Report Document").
   Chart: The report will be displayed as a chart according to the selected chart style. The availability of chart and its style options depends on the selected Report Type.

   If you have selected a Chart design, the following definitions are required:
   a. Select value for "X Field" to represent the X coordinates of the chart.

b. Select "Quantity" or "Value" for Y Field to represent the Y axis.
c. Select chart type for "Chart" field
d. Select "Color Style" of the chart

6. **Set conditions for filter**: The grid in the bottom part of the screen enables selecting fields and values for filtering the records in report. In the "Field" column select the field.



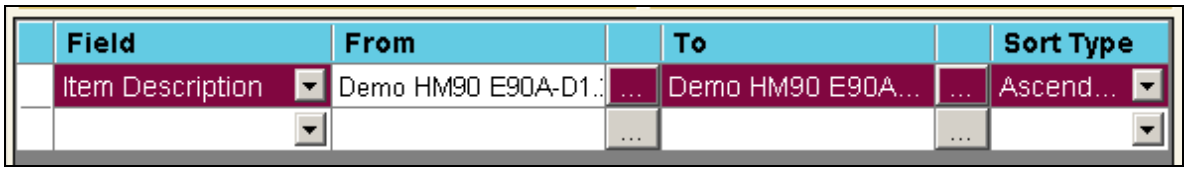
As a result, the edit fields and browse buttons  in the columns From / To will be enabled / disabled for click, depending on the selected field type.
For some fields, dynamic objects will be displayed from the right side of the grid in order to select records for the filter. The selected records then will be shown also on the From/To columns.

From / To: If the browse button is enabled, click the button to get a search list and select record as the start / finish point for filter. Otherwise, click the row to edit the value for filter.

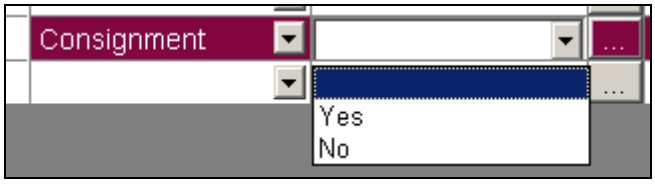
Sort Type: Set the order for viewing the data, either Ascending or Descending.

Examples:

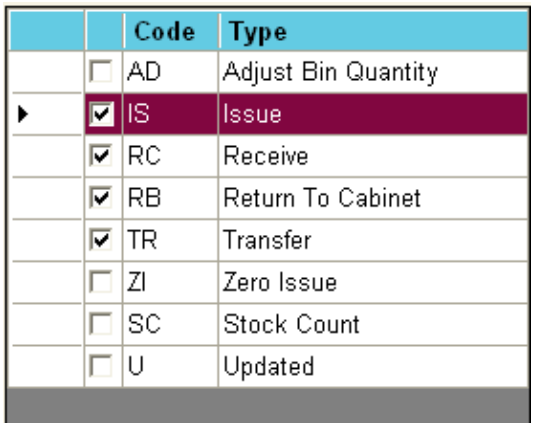
- **Edit box**: If selecting "Item Description" field, by clicking the row dynamic edit box will be displayed allowing manual edition.
  The buttons "From" and "To" will be also enabled allowing selection of the items by the range of item descriptions.



- **Combo box**: If selecting "Consignment" field, dynamic list will be displayed allowing selection of single value.
  The "From" and "To" buttons will be disabled.

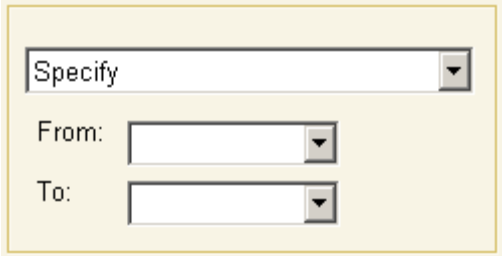


- **Grid**: If selecting "Transaction Type" field, a dynamic grid with all the transaction types will be displayed allowing multiple selection of the types for filtering.
  The "From" and "To" buttons will be disabled.

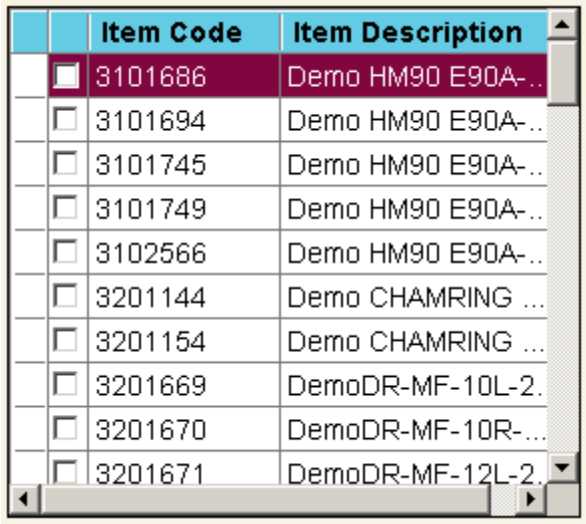


- **Dates**: If selecting "Transaction Date", dynamic fields will be displayed allowing selection of dates range for filtering.

- A pre-defined period relative to the date of the report: yesterday; last 3 days; last week; last month; and last year.
- Free choice of dates – from a specified date to a specified date.
  The "From" and "To" buttons will be disabled.



- **Grid**: If selecting "Item Code" field, a dynamic grid with all the items will be displayed allowing multiple selection of the items for filtering.
  The buttons "From" and "To" will be also enabled allowing selection of the items by the range of item codes.



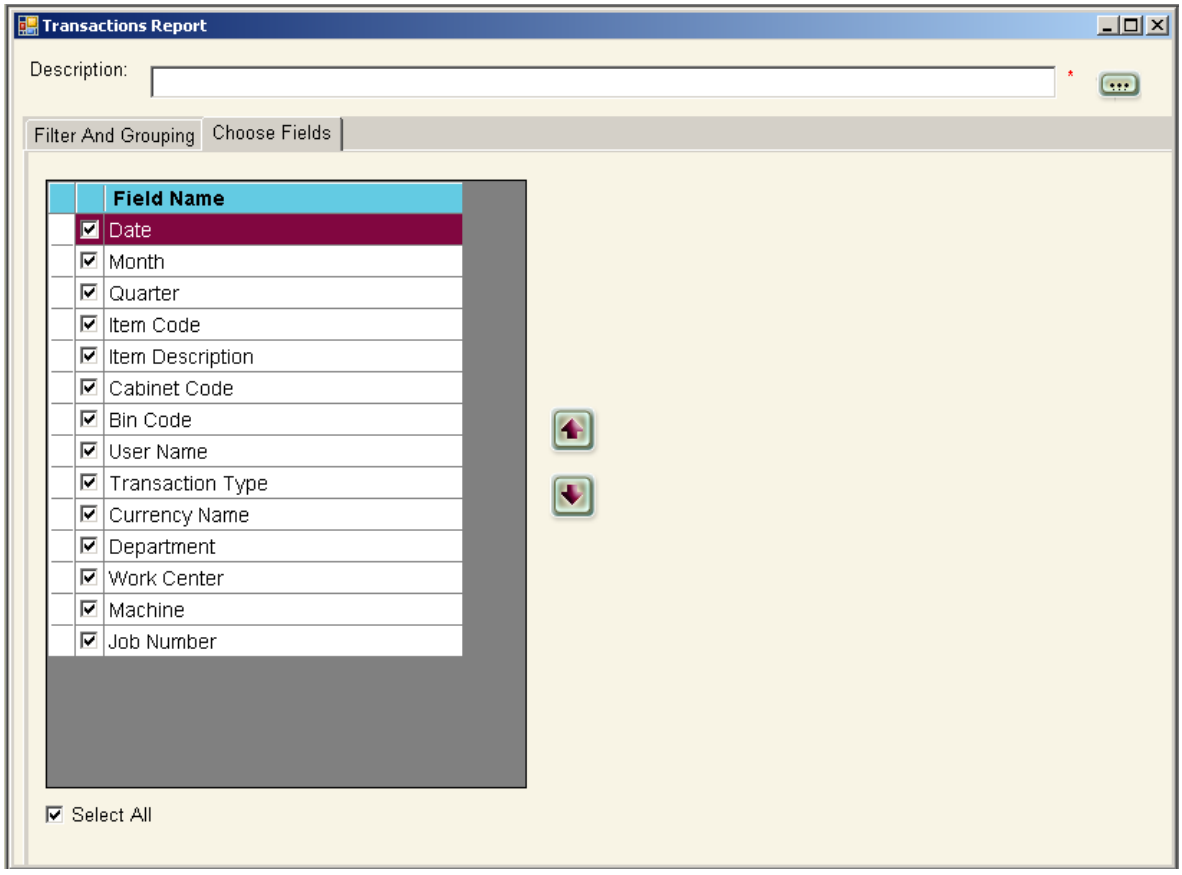
7. **Set condition operator**: Select one of the two options for "Condition Operator":
   And: Means that **only** the records that will match **all** the defined conditions will appear in the report.
   Or: Means that **all** the records that will match **at least one** of the defined conditions will appear in the report.

On the "Choose Fields" tab:

8. **Select fields**: Select the fields that you want to include in the report and cancel the check sign for fields to be excluded.

Note: If you want to display a report of Chart design using "Report Document", the fields' selection is not relevant.

Use arrows  and  to change the order in which the fields will be displayed.



9. **Run report**: There are 2 options for running reports:

   MS-Excel file:

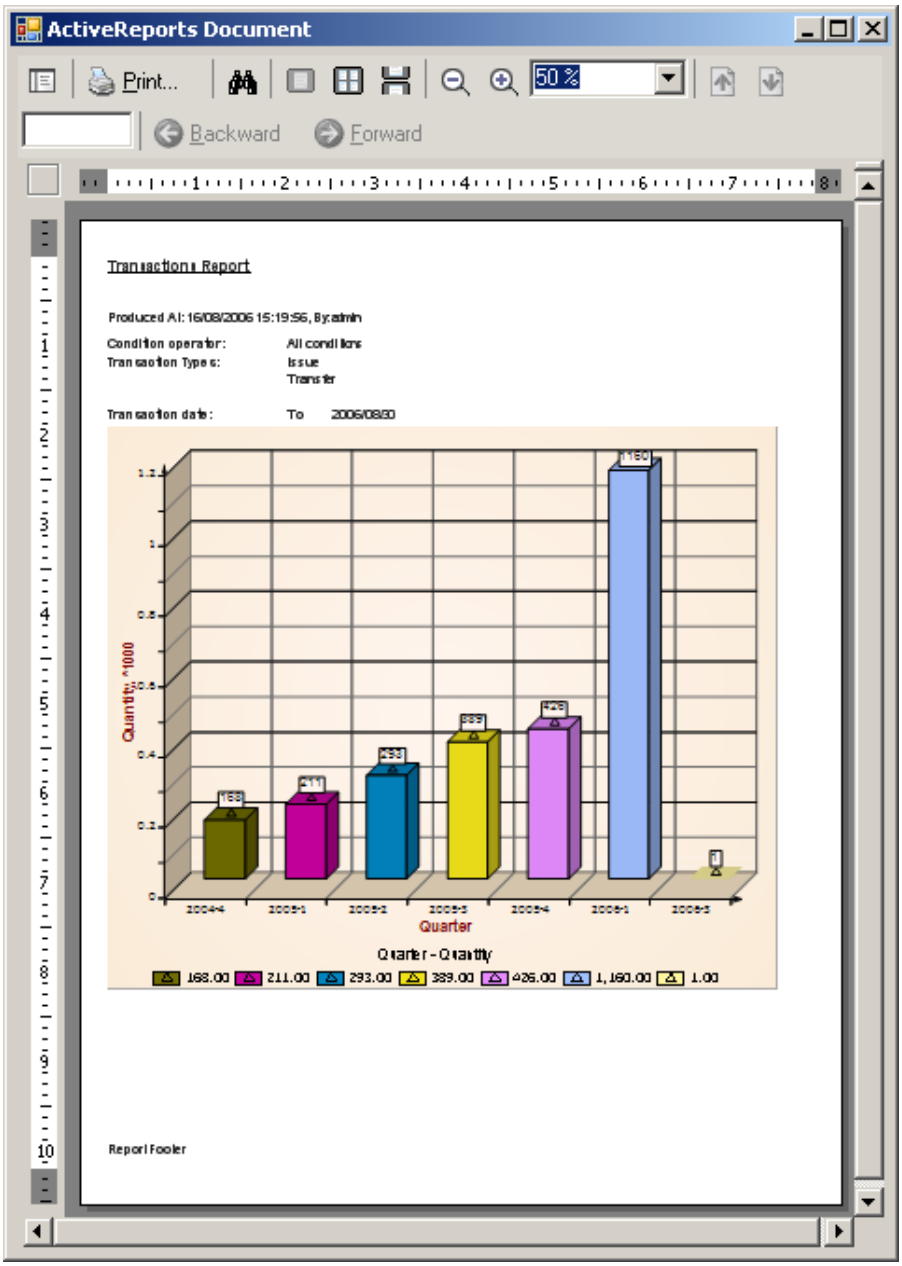
   - Microsoft Excel file displaying report as a list of records.
   - Activated by clicking the  <Search> button on the Menu Bar.

   Report Document:

- Special built-in program displaying a report as a list of records or Chart design according to the user's selections.
- The report is displayed in printing format.
- Activated by clicking the  <Print> button on the Menu Bar.

If you want to display a report as "Report Document", select Standard or Chart under Design Report. If you want to display a report as MS-Excel file, this selection is not relevant and it will display anyway in Standard design.

Example for Report in Chart design:



9.1.2 Saving a Report

You can save your report parameters, in order to run the report again in the future.

To do this: after creating the report, click the  <Save> button on the Menu bar.

The report will be added to a list under the defined report "Description".

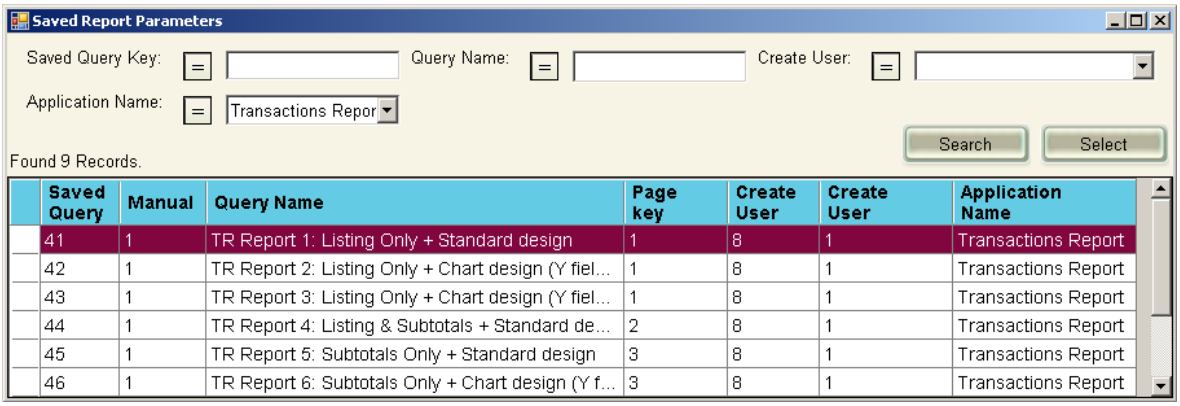


Note: It is mandatory to fill in "Description" field if you want to save the report.

9.1.3 Finding a Saved Report

In order to access a saved report, click the button to the right of the "Description" field.

The screen "Saved Report Parameters" as following will appear.



Saved Query	Manual	Query Name	Page key	Create User	Create User	Application Name
41	1	TR Report 1: Listing Only + Standard design	1	8	1	Transactions Report
42	1	TR Report 2: Listing Only + Chart design (Y fiel...	1	8	1	Transactions Report
43	1	TR Report 3: Listing Only + Chart design (Y fiel...	1	8	1	Transactions Report
44	1	TR Report 4: Listing & Subtotals + Standard de...	2	8	1	Transactions Report
45	1	TR Report 5: Subtotals Only + Standard design	3	8	1	Transactions Report
46	1	TR Report 6: Subtotals Only + Chart design (Y f...	3	8	1	Transactions Report

In this screen, you can search for saved reports by filling in any of the fields in the top part of the screen. If you don't fill in the fields, all saved reports will be shown.

To access the saved reports which match the selected fields, click the <Search> button.

Then select the line that contains the saved report that you wish to view, and click the <Select> button or double click on the line. This will return you to the previous screen, with the saved report parameters. You can modify the parameters if you wish, and then run the report by clicking the <Search> button.

You can also delete an unwanted report.

9.2 Transactions Reports

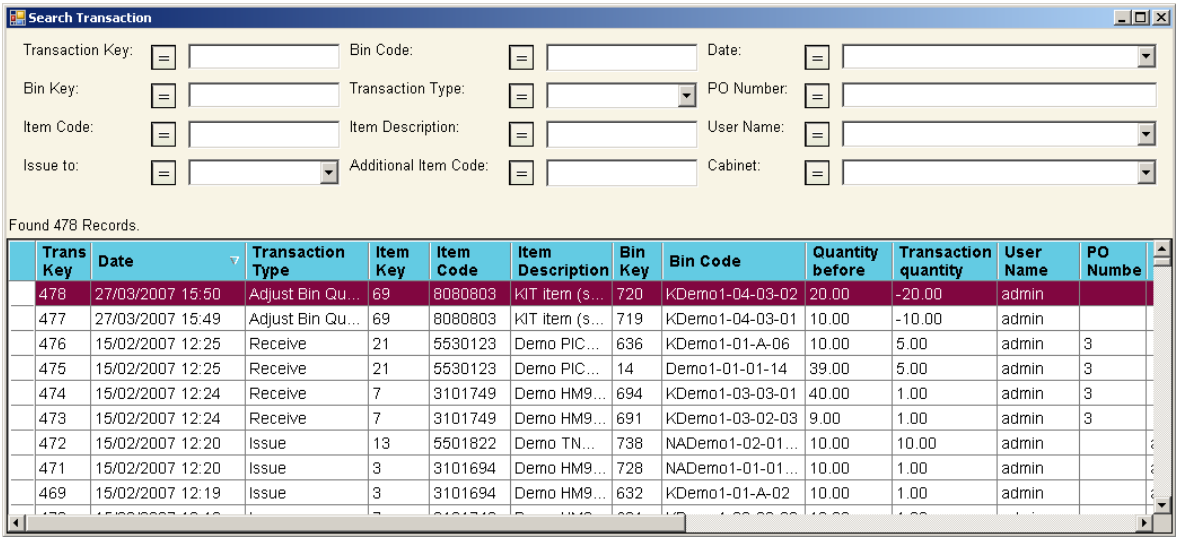
Transaction reports allow you to follow each stock operation performed in the system by either the TOUCH or MANAGE module.

9.2.1 Basic Transactions Report

This report displays in a generic view all the recorded stock transactions.

It details transaction type and quantity, the date and time when the transaction was created, the user who performed the operation and more.

To run the report, open "Menu: Operations → Transactions".



Trans Key	Date	Transaction Type	Item Key	Item Code	Item Description	Bin Key	Bin Code	Quantity before	Transaction quantity	User Name	PO Numbe
478	27/03/2007 15:50	Adjust Bin Qu...	69	8080803	KIT item (s...	720	KDemo1-04-03-02	20.00	-20.00	admin	
477	27/03/2007 15:49	Adjust Bin Qu...	69	8080803	KIT item (s...	719	KDemo1-04-03-01	10.00	-10.00	admin	
476	15/02/2007 12:25	Receive	21	5530123	Demo PIC...	636	KDemo1-01-A-06	10.00	5.00	admin	3
475	15/02/2007 12:25	Receive	21	5530123	Demo PIC...	14	Demo1-01-01-14	39.00	5.00	admin	3
474	15/02/2007 12:24	Receive	7	3101749	Demo HM9...	694	KDemo1-03-03-01	40.00	1.00	admin	3
473	15/02/2007 12:24	Receive	7	3101749	Demo HM9...	691	KDemo1-03-02-03	9.00	1.00	admin	3
472	15/02/2007 12:20	Issue	13	5501822	Demo TN...	738	NADemo1-02-01...	10.00	10.00	admin	
471	15/02/2007 12:20	Issue	3	3101694	Demo HM9...	728	NADemo1-01-01...	10.00	1.00	admin	
469	15/02/2007 12:19	Issue	3	3101694	Demo HM9...	632	KDemo1-01-A-02	10.00	1.00	admin	

Note: This report, in contrast to other reports, also enables you to update the transactions. For more information read Chapter B: Recorded Stock Transactions (section 8.8).

9.2.2 Advanced Transactions Report

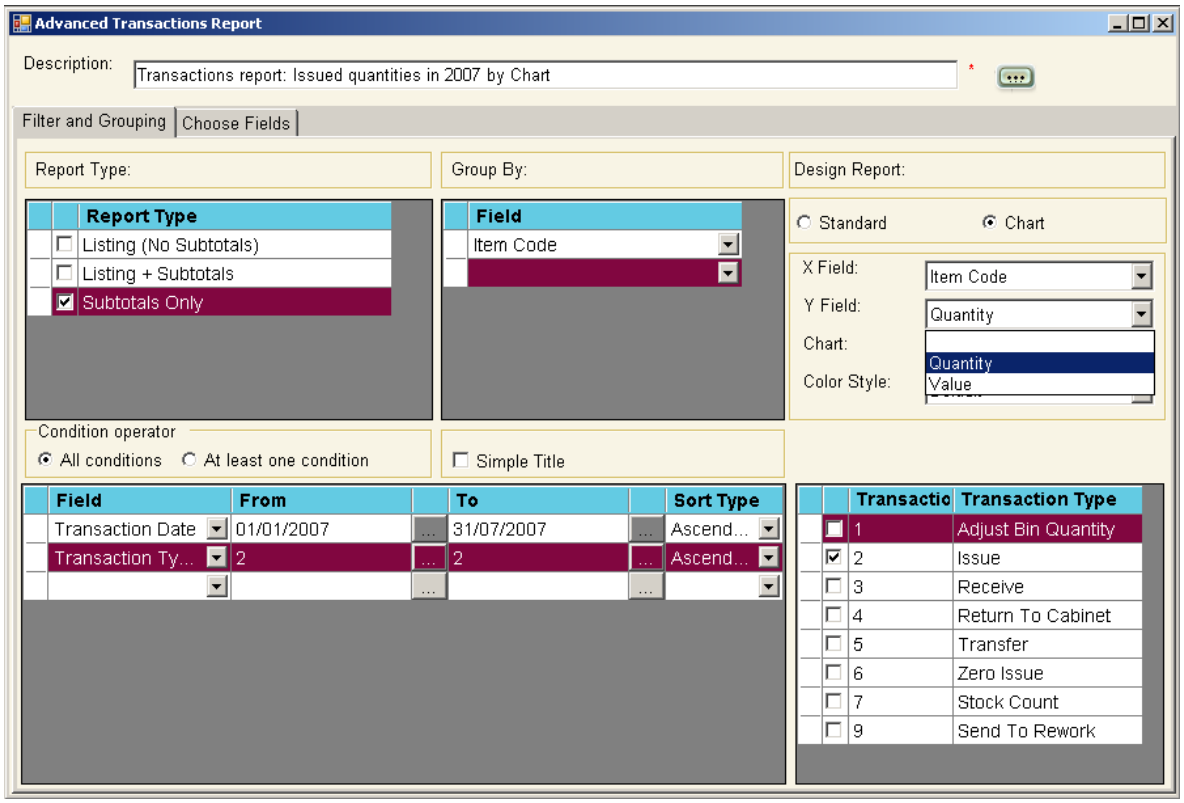
This screen enables the user to create a customized report for transactions based on the records of the basic transactions report. It also enables the user to save the report and to run it at scheduled time.

The report displays the selected transactions by:

Quantity: The quantity of items in the transaction.

Value: The total monetary value of the transaction (taken from Line value system currency of the transaction).

To run the report, open "Menu: Reports → Transactions → Advanced Transactions Report".

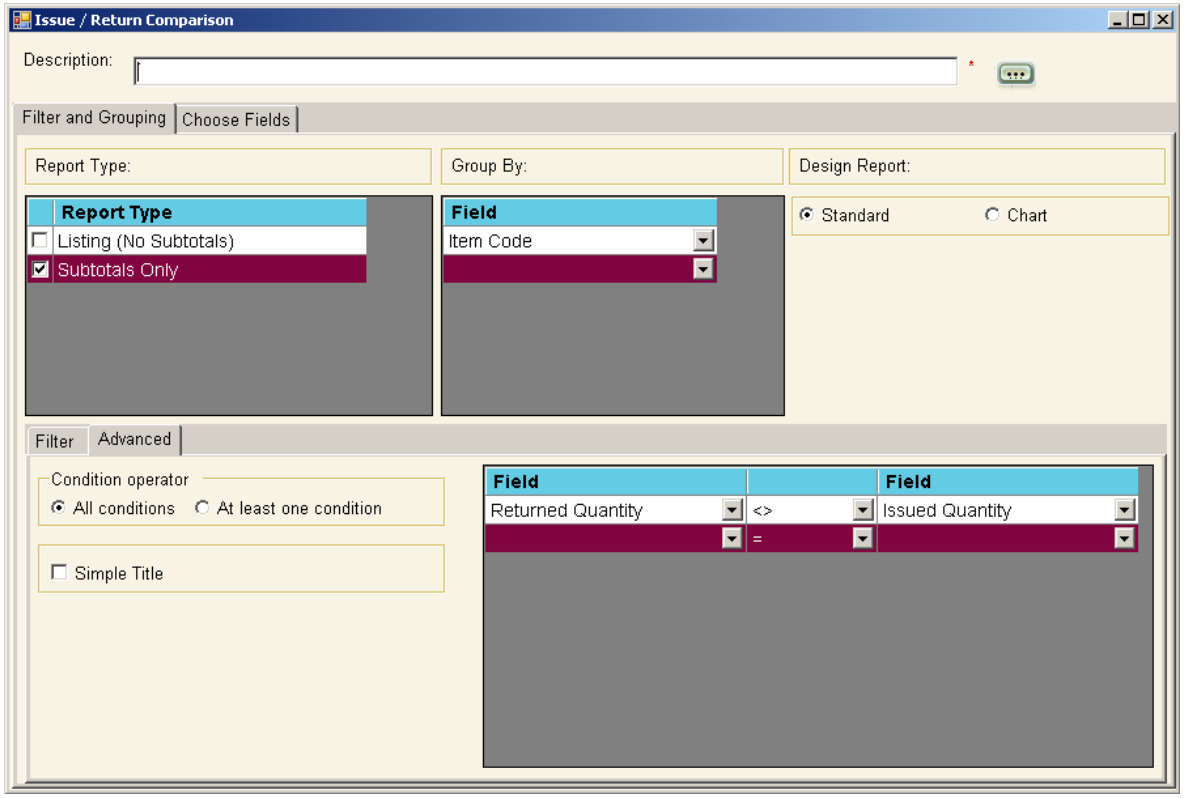


Please refer to Chapter B: Advanced Reports (section 9.1) for instructions how to build and run an Advanced Report.

9.2.3 Issue / Return Comparison

This report enables to display returned quantities compared to the issued quantities per item/user.

To run the report, open "Menu: Reports → Transactions → Issue / Return Comparison".



Please refer to Chapter B: Advanced Reports (section 9.1) for instructions how to build and run an Advanced Report**.**

9.3 Stock Reports

The stock reports allow following the actual stock quantities.

9.3.1 Advanced Stock Report

This screen enables the user to create a customized report for stock based on the basic stock reports. It also enables the user to save the definitions and to run the report at a scheduled time.

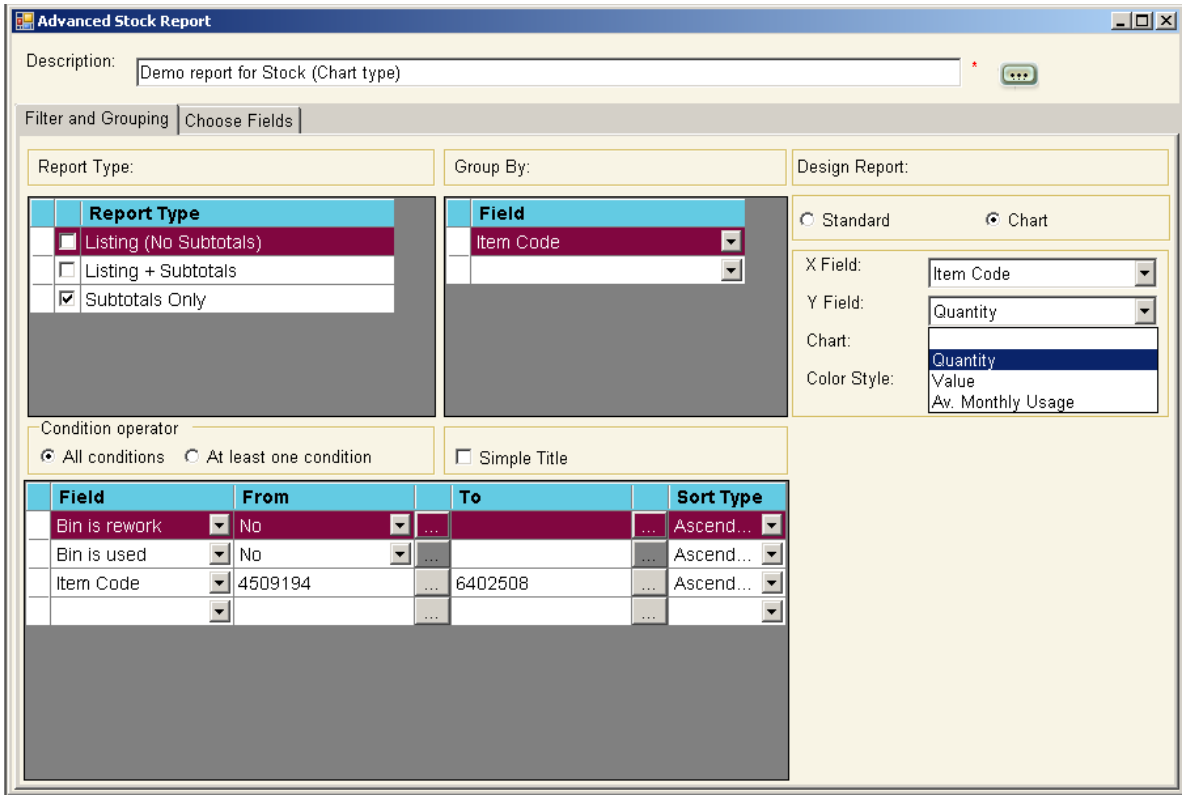
The report displays the stock by:

Quantity: The quantity of items in stock.

Value: The total monetary value of the stock (Average Cost of the item * Quantity).

Av. Monthly Usage: The average quantity of items used (issued) per month (calculated by Monthly Process).

To run the report, open "Menu: Reports → Stock Reports → Advanced Stock Report".



Please refer to Chapter B: Advanced Reports (section 9.1) for instructions how to build and run an Advanced Report.

9.3.2 Dead Items Report

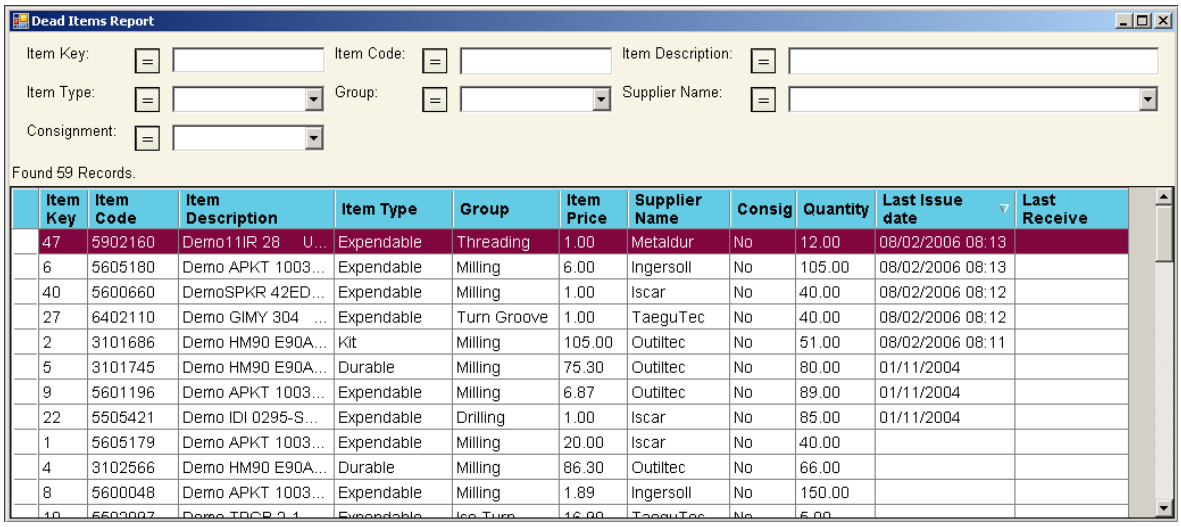
This report displays all the items that were not in use and considered as "Dead" according to the following conditions:

There is stock for the item, but…

- There are no transactions for the item OR;
- There is no Issue / Receive date OR;
- Last time that the item was Issued / Received was more than **X** months ago

The number of months is defined by **System Option 213** (Number of months with no Item/Bin activity).

To run the report, open "Menu: Reports → Stock Reports → Dead Items Report".



Item Key	Item Code	Item Description	Item Type	Group	Item Price	Supplier Name	Consig	Quantity	Last Issue date	Last Receive
47	5902160	Demo11IR 28 U...	Expendable	Threading	1.00	Metaldur	No	12.00	08/02/2006 08:13	
6	5605180	Demo APKT 1003...	Expendable	Milling	6.00	Ingersoll	No	105.00	08/02/2006 08:13	
40	5600660	DemoSPKR 42ED...	Expendable	Milling	1.00	Iscar	No	40.00	08/02/2006 08:12	
27	6402110	Demo GIMY 304 ...	Expendable	Turn Groove	1.00	TaeguTec	No	40.00	08/02/2006 08:12	
2	3101686	Demo HM90 E90A...	Kit	Milling	105.00	Outiltec	No	51.00	08/02/2006 08:11	
5	3101745	Demo HM90 E90A...	Durable	Milling	75.30	Outiltec	No	80.00	01/11/2004	
9	5601196	Demo APKT 1003...	Expendable	Milling	6.87	Outiltec	No	89.00	01/11/2004	
22	5505421	Demo IDI 0295-S...	Expendable	Drilling	1.00	Iscar	No	85.00	01/11/2004	
1	5605179	Demo APKT 1003...	Expendable	Milling	20.00	Iscar	No	40.00		
4	3102566	Demo HM90 E90A...	Durable	Milling	86.30	Outiltec	No	66.00		
8	5600048	Demo APKT 1003...	Expendable	Milling	1.89	Ingersoll	No	150.00		

9.3.3 Dead Bins Report

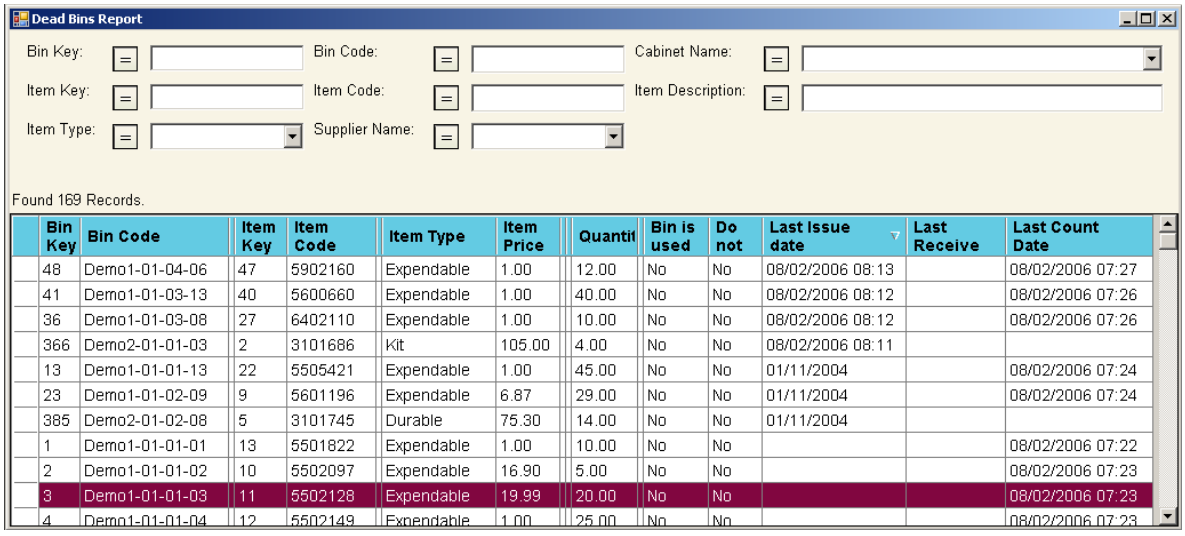
This report displays all the bins that were not in use and considered as "Dead" according to the following conditions:

There is stock in the bin, but…

- There are no transactions for the bin OR;
- There is no Issue / Receive date OR;
- Last time that there was Issue / Receive transaction on that bin was more than **X** months ago

The number of months is defined by **System Option 213** (Number of months with no Item/Bin activity).

To run the report, open "Menu: Reports → Stock Reports → Dead Bins Report".



Bin Key	Bin Code	Item Key	Item Code	Item Type	Item Price	Quantit	Bin is used	Do not	Last Issue date	Last Receive	Last Count Date
48	Demo1-01-04-06	47	5902160	Expendable	1.00	12.00	No	No	08/02/2006 08:13		08/02/2006 07:27
41	Demo1-01-03-13	40	5600660	Expendable	1.00	40.00	No	No	08/02/2006 08:12		08/02/2006 07:26
36	Demo1-01-03-08	27	6402110	Expendable	1.00	10.00	No	No	08/02/2006 08:12		08/02/2006 07:26
366	Demo2-01-01-03	2	3101686	Kit	105.00	4.00	No	No	08/02/2006 08:11		
13	Demo1-01-01-13	22	5505421	Expendable	1.00	45.00	No	No	01/11/2004		08/02/2006 07:24
23	Demo1-01-02-09	9	5601196	Expendable	6.87	29.00	No	No	01/11/2004		08/02/2006 07:24
385	Demo2-01-02-08	5	3101745	Durable	75.30	14.00	No	No	01/11/2004		
1	Demo1-01-01-01	13	5501822	Expendable	1.00	10.00	No	No			08/02/2006 07:22
2	Demo1-01-01-02	10	5502097	Expendable	16.90	5.00	No	No			08/02/2006 07:23
3	Demo1-01-01-03	11	5502128	Expendable	19.99	20.00	No	No			08/02/2006 07:23
4	Demo1-01-01-04	12	5502149	Expendable	1.00	25.00	No	No			08/02/2006 07:23

9.3.4 Stock by Bin

This report displays all the bins and their stock provided that the bin has an item definition.
It also displays the **Bin** stock management information for each bin, such as: Min. & Max. quantities, draft and ordered quantities, usage information, etc.

To run the report, open "Menu: Reports → Stock Reports → Stock by Bin".

9.3.5 Stock by Cabinet

This report displays all the items and their stock by cabinet.
It also displays the **Item/Cabinet** stock management information for each item by cabinet, such as: Min & Max quantities, draft and ordered quantities, usage information, etc.

To run the report, open "Menu: Reports → Stock Reports → Stock by Cabinet".

9.3.6 Stock by Item

This report displays all the items in the system and their stock.
It also displays the **Item** stock management information for each item, such as: Min & Max quantities, draft and ordered quantities, usage information, etc.

To run the report, open "Menu: Reports → Stock Reports → Stock by Item".

9.3.7 Min Comparison

This report compares the Automatically Calculated Minimum stock with the Manually Determined Minimum stock on each stock management level (Bin, Item/Cabinet and Item levels). It calculates the difference between the two stock quantities in pieces and in percentage. It also calculates and displays the monetary value of the difference in the 'Saving' column.

To run the report, open "Menu: Reports → Stock Reports → Min Comparison".

9.3.8 Max Comparison

The report compares the Automatically Calculated Maximum stock with the Manually Determined Maximum stock on each stock management level (Bin, Item/Cabinet and Item levels). It calculates the difference between the two stock quantities in pieces and in percentage. It also calculates and displays the monetary value of the difference in the 'Saving' column.

To run the report, open "Menu: Reports → Stock Reports → Max Comparison".

9.4 Usage Reports

The usage reports allow you to track the usage of items on each stock management level (Bin, Item/Cabinet and Item levels) by month.

9.4.1 Basic Usage Report

This report displays in generic view the history of every monthly usage per Bin, per Item-Cabinet and per Item for all managed cabinets.

For the report, open "Menu: Reports → Usage Report → Basic Usage Report".

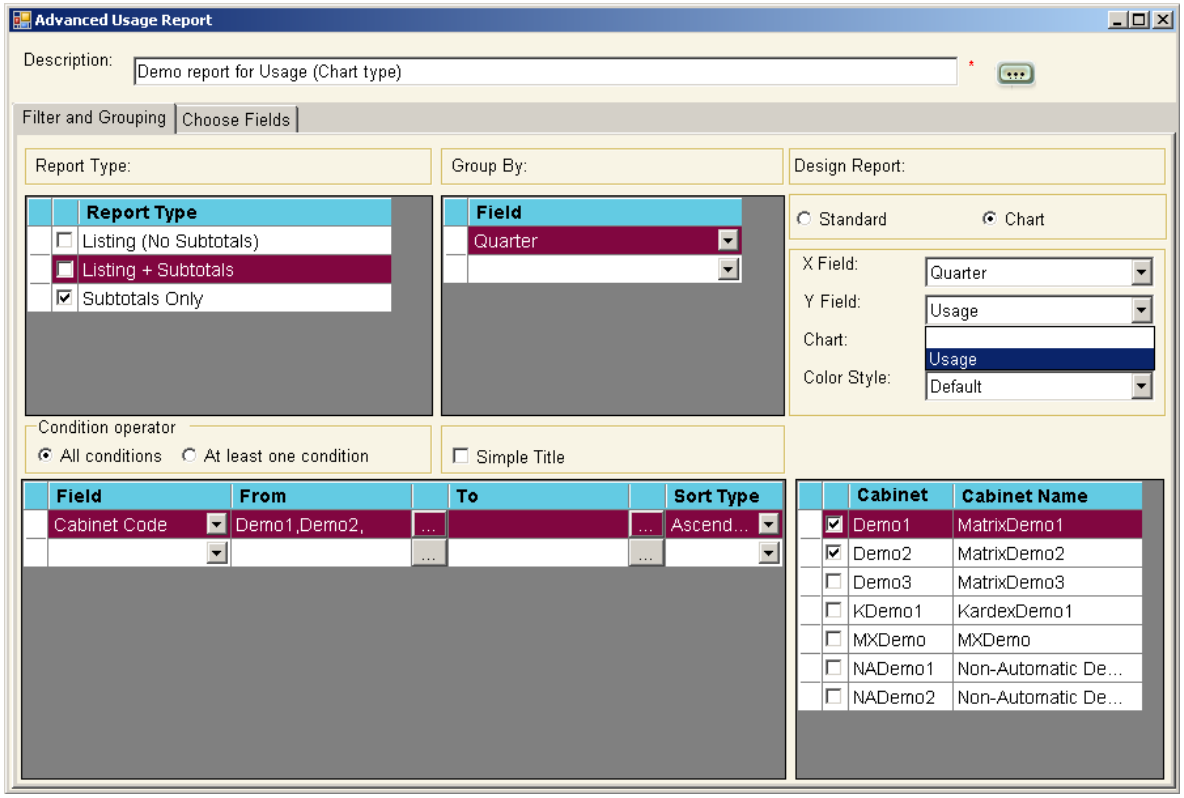
9.4.2 Advanced Usage Report

This screen enables the user to create a customized report based on the records of the basic usage report. It also enables the user to save the definitions and run the report at a scheduled time.

The report displays the items by:

Usage: The quantity of items used (issued).

To run the report, open "Menu: Reports → Usage Report → Advanced Usage Report".



Please refer to Chapter B: Advanced Reports (section 9.1) for instructions how to build and run an Advanced Report.

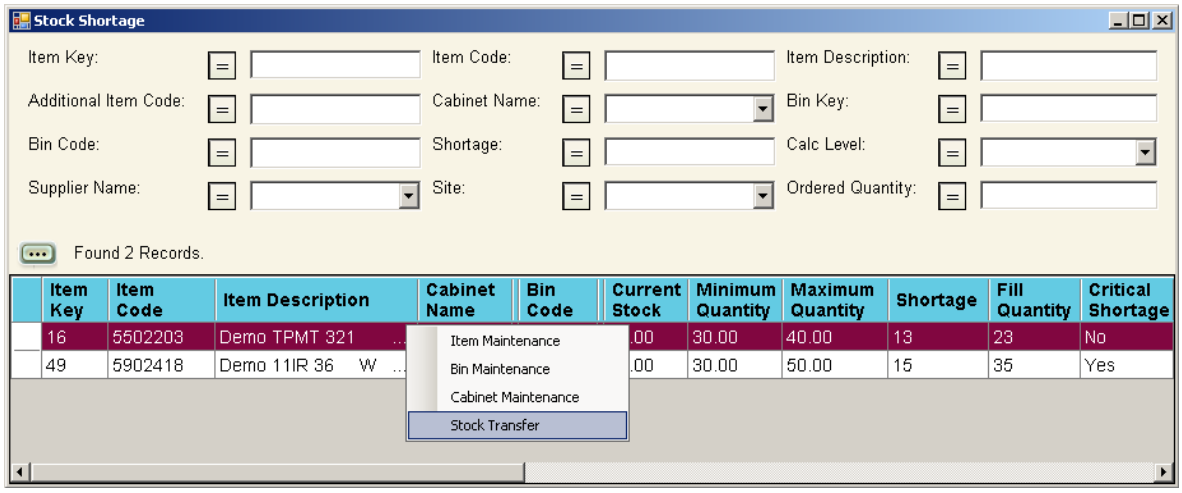
9.5 Stock Shortage

The stock shortage reports enables the user to track stock shortages per item for each stock management level (Bin, Item/Cabinet and Item levels) detailed.

9.5.1 Stock Shortage Report

This report displays stock shortages in all three stock management levels. It compares the stock to the minimum stock quantity, and lists those cases where the stock falls below the minimum. It also shows the draft and open orders quantities.
This is a good control tool, as it lets us know where problems in stock levels might occur.

For the report, open "Menu: Reports → Stock Reports → Stock Shortage".



By clicking the right mouse-button, a pop-up menu will appear displaying option 'Stock Transfer' for transferring items from bin to bin. This option will be opened only if the stock shortage is on the Bin level.

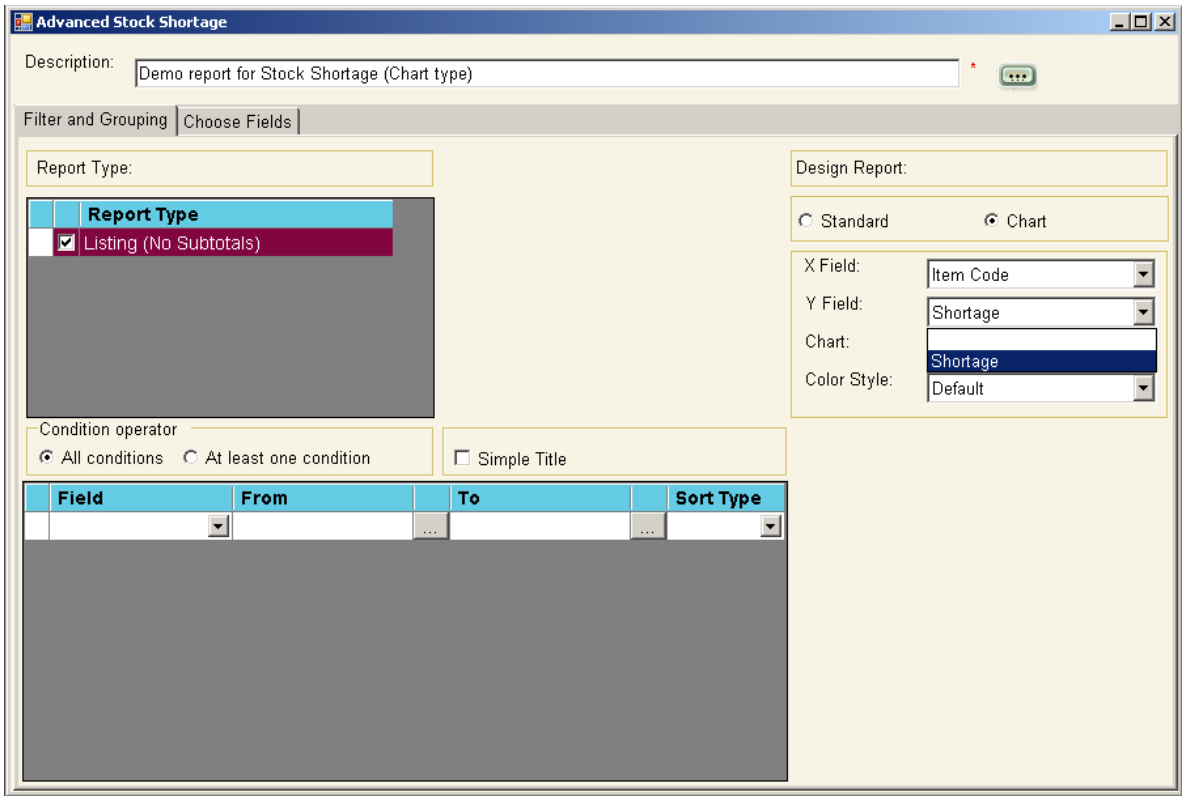
9.5.2 Advanced Stock Shortage

This screen enables the user to create a customized report for stock shortages based on the basic stock shortage report. It also enables the user to save the definitions and run the report at a scheduled time.

The report displays the stock by:

Shortage: The quantity of items missing up to the required minimum quantity.

To run the report, open "Menu: Reports → Stock Shortage → Advanced Stock Shortage".



Please refer to Chapter B: Advanced Reports (section 9.1) for instructions how to build and run an Advanced Report.

9.5.3 Early Warning Report

This report displays items and the prognosis for how many days the stock will be sufficient based on the statistics of usage (Usage, 3 Month Average, Lead Time, Stock Days).

This report will help you get ready and react before a delivery problem happens.

To run the report, open "Menu: Reports → Stock Shortage → Early Warning Report".

9.6 Stock Valuation Reports

The valuation reports allow the user to view the monetary value of the current stock.
The value is calculated by Average Cost of the item * Quantity.

Note: This section describes basic reports for valuation of the stock. To build an advanced report for stock valuation, use Advanced Stock Report where you can see the value information as well. Read more in Chapter B: Advanced Stock Report (section 9.3.1).

9.6.1 Valuation by Bin report

This report displays in generic view all the bins that have item definition and their stock value. The stock value is expressed in Total Value:
Total Value = Average Cost of the item * Quantity in the current bin.

For the report, open "Menu: Reports → Stock Valuation Report → Valuation by Bin Report".

9.6.2 Valuation by Item report

This report displays in generic view all the items in the system and their stock value.
The stock value is expressed in Total Value:
Total Value = Average Cost of the item * Quantity of the item.

For the report, open "Menu: Reports → Stock Valuation Report → Valuation by Item Report".

9.6.3 Valuation by Cabinet report

This report displays in generic view all the items by each cabinet in the system and their stock value. The stock value is expressed in Total Value:

Total Value = Average Cost of the item * Quantity in the current cabinet.

For the report, open "Menu: Reports → Stock Valuation Report → Valuation by Cabinet Report".

9.7 Orders Report

The orders report allows the user to follow up on all the orders created in the system.

9.7.1 Basic Orders Report

This report displays all the created order lines for items created by Automatic and Manual orders. It details the order which contains the order line, the item supplier, the item details, the status of the order line (Cancel, Close, Draft, Open, Partial, Sent to supplier), the order line level (Item, Item-Cabinet, Bin), the quantities received and remained from the order line, the price, the dates etc.

For the report, open "Menu: Reports → Orders Report → Basic Orders Report".

9.7.2 Advanced Orders Report

This screen enables the user to create a customized report for orders based on the records of the basic orders report. It also enables the user to save the definitions and run the report at a scheduled time.

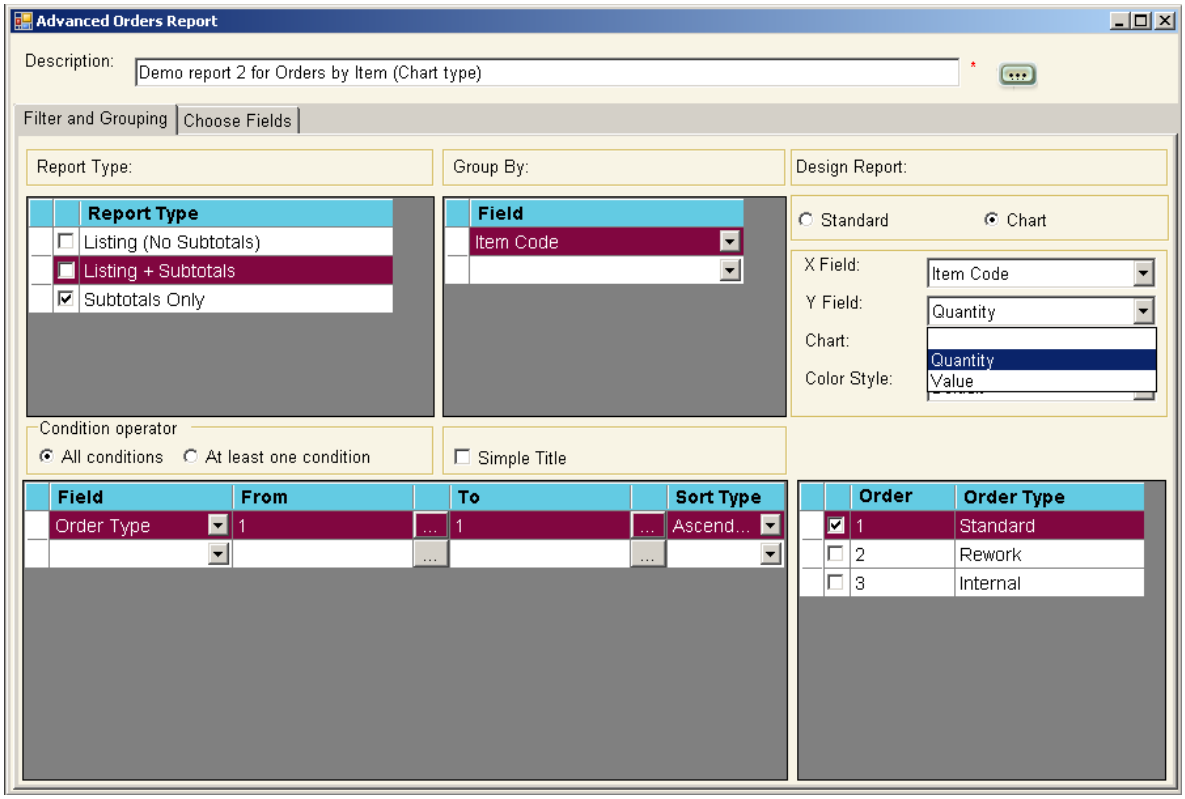
The report displays the order lines by:

Quantity: The quantity of items in the order line.

Value: The total monetary value of the order line (taken from Total Price of the order line = Unit Price * Quantity of the order line).

Remained Quantity: The quantity of items from order lines which still need to be received.

For the report, open "Menu: Reports → Orders Report → Advanced Orders Report".



Please refer to Chapter B: Advanced Reports (section 9.1) for instructions how to build and run an Advanced Report.

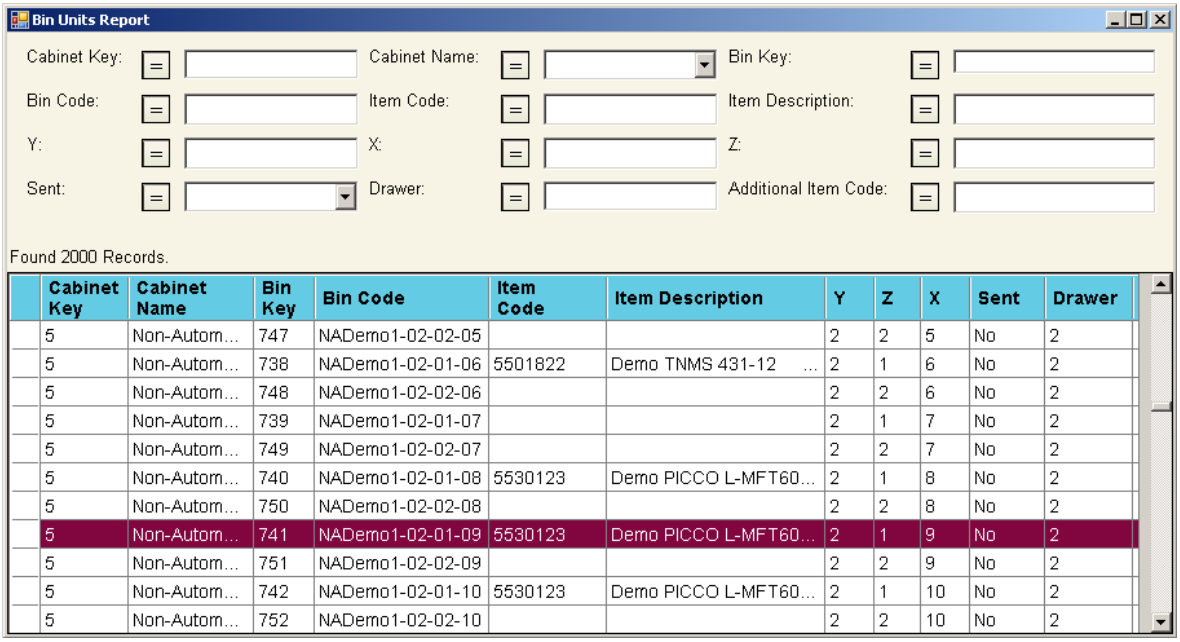
9.8 Bin Units Report

This report displays in generic view all the Bin Units in the system.

For each bin unit it details the **Y-Z-X coordinates**, the **'Sent'** value which determines if this bin unit has a latch for opening and the **Cabinet / Bin** which uses this bin unit.

Please note that some records may not have coordinates. This will be bins without bin units.

To run the report, open "Menu: Reports → Bin Units Report".



Cabinet Key	Cabinet Name	Bin Key	Bin Code	Item Code	Item Description	Y	Z	X	Sent	Drawer
5	Non-Autom...	747	NADemo1-02-02-05			2	2	5	No	2
5	Non-Autom...	738	NADemo1-02-01-06	5501822	Demo TNMS 431-12 ...	2	1	6	No	2
5	Non-Autom...	748	NADemo1-02-02-06			2	2	6	No	2
5	Non-Autom...	739	NADemo1-02-01-07			2	1	7	No	2
5	Non-Autom...	749	NADemo1-02-02-07			2	2	7	No	2
5	Non-Autom...	740	NADemo1-02-01-08	5530123	Demo PICCO L-MFT60...	2	1	8	No	2
5	Non-Autom...	750	NADemo1-02-02-08			2	2	8	No	2
5	Non-Autom...	741	NADemo1-02-01-09	5530123	Demo PICCO L-MFT60...	2	1	9	No	2
5	Non-Autom...	751	NADemo1-02-02-09			2	2	9	No	2
5	Non-Autom...	742	NADemo1-02-01-10	5530123	Demo PICCO L-MFT60...	2	1	10	No	2
5	Non-Autom...	752	NADemo1-02-02-10			2	2	10	No	2

9.9 Additional Fields Report

The additional fields report allows the user to view the values of the additional customized fields added for the system entities (Bin, Item, Purchase Order, Purchase Order Line).

In order to add the customized fields to the entities, see Chapter B: Additional Fields (section 5.5).

9.9.1 Basic Additional Fields Report

This report displays in a generic view the entities that have additional fields and the values of these fields.

The possible entities are: **Bin**, **Item**, **Purchase Order**, **Purchase Order Line**.

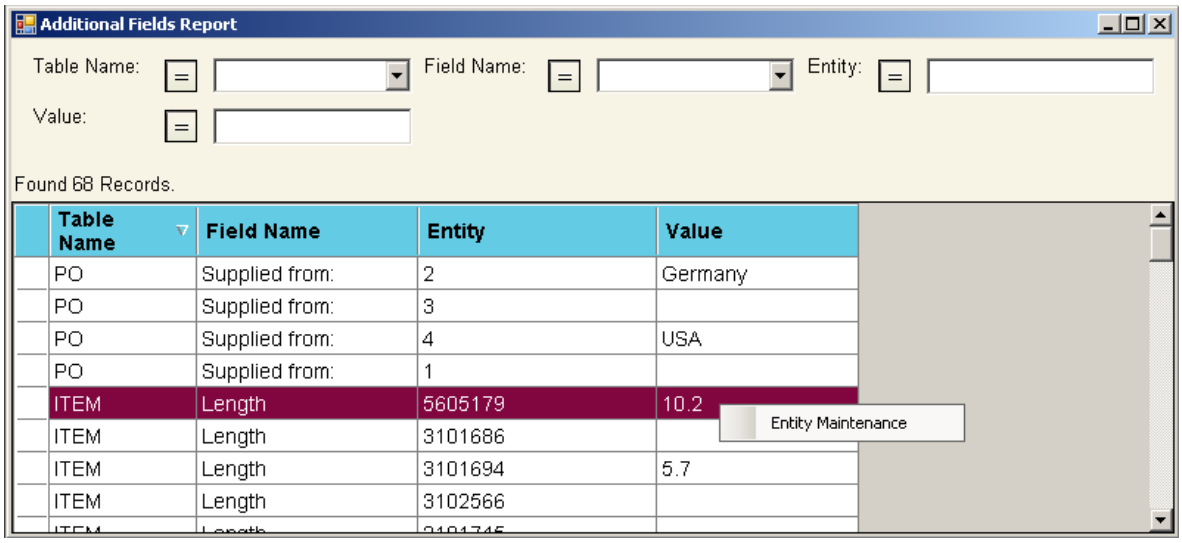
The entities that do not have additional fields are not displayed in the report.

The information is displayed for viewing.

To open the entity for changes, select the record and click the right mouse button.

In order to add the fields to the entities, see Chapter B: Additional Fields (section 5.5).

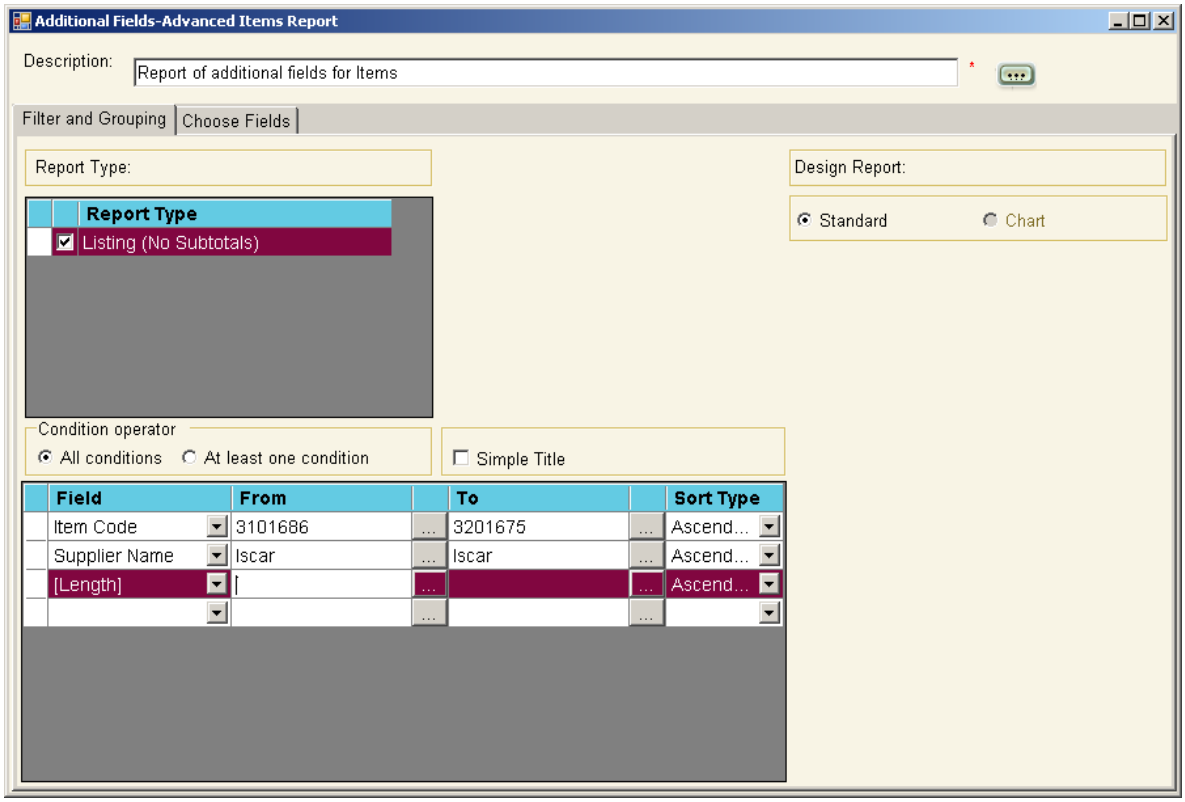
To run the report, open "Menu: Reports → Additional Fields Report → Additional Fields Report".



9.9.2 Additional Fields - Advanced Items Report

This screen enables the user to create a customized report based on the records of the basic additional fields report. It also enables the user to save the definitions and run the report at a scheduled time.

To run the report, open "Menu: Reports → Additional Fields Report → Additional Fields - Advanced Items Report".



Please refer to Chapter B: Advanced Reports (section 9.1) for instructions how to build and run an Advanced Report.

9.9.3 Additional Fields - Advanced Bins Report

This screen enables the user to create a customized report for values of additional fields of BIN entities based on the records of the basic additional fields report. It also enables the user to save the definitions and run the report at scheduled time.

To run the report, open "Menu: Reports → Additional Fields Report → Additional Fields - Advanced Bins Report".

Please refer to Chapter B: Advanced Reports (section 9.1) for instructions how to build and run an Advanced Report.

9.9.4 Additional Fields - Advanced Orders Lines Report

This screen enables the user to create a customized report for values of additional fields of PURCHASE ORDER based on the records of the basic additional fields report. It also enables the user to save the definitions and run the report at scheduled time.

To run the report, open "Menu: Reports → Additional Fields Report → Additional Fields - Advanced Orders Lines Report".

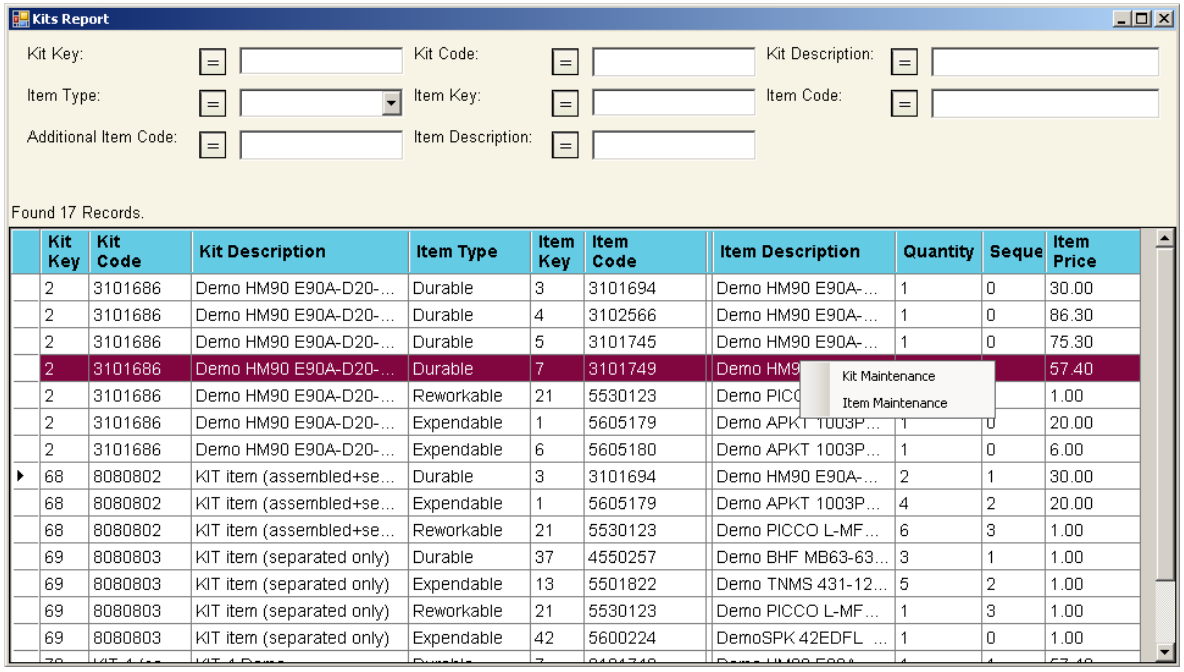
Please refer to Chapter B: Advanced Reports (section 9.1) for instructions how to build and run an Advanced Report.

9.10 Items Reports

9.10.1 Kits Report

This report displays all the kits in the system.
It details for each kit the component items and their quantities in the kit.
The information is displayed for viewing. To change a kit or its component items, select the record and click the right mouse button.

For the report, open "Menu: Reports → Items → Kits Report".



Kit Key	Kit Code	Kit Description	Item Type	Item Key	Item Code	Item Description	Quantity	Seque	Item Price
2	3101686	Demo HM90 E90A-D20-...	Durable	3	3101694	Demo HM90 E90A-...	1	0	30.00
2	3101686	Demo HM90 E90A-D20-...	Durable	4	3102566	Demo HM90 E90A-...	1	0	86.30
2	3101686	Demo HM90 E90A-D20-...	Durable	5	3101745	Demo HM90 E90A-...	1	0	75.30
2	3101686	Demo HM90 E90A-D20-...	Durable	7	3101749	Demo HM9			57.40
2	3101686	Demo HM90 E90A-D20-...	Reworkable	21	5530123	Demo PICC			1.00
2	3101686	Demo HM90 E90A-D20-...	Expendable	1	5605179	Demo APKT 1003P...	1	0	20.00
2	3101686	Demo HM90 E90A-D20-...	Expendable	6	5605180	Demo APKT 1003P...	1	0	6.00
68	8080802	KIT item (assembled+se...	Durable	3	3101694	Demo HM90 E90A-...	2	1	30.00
68	8080802	KIT item (assembled+se...	Expendable	1	5605179	Demo APKT 1003P...	4	2	20.00
68	8080802	KIT item (assembled+se...	Reworkable	21	5530123	Demo PICCO L-MF...	6	3	1.00
69	8080803	KIT item (separated only)	Durable	37	4550257	Demo BHF MB63-63...	3	1	1.00
69	8080803	KIT item (separated only)	Expendable	13	5501822	Demo TNMS 431-12...	5	2	1.00
69	8080803	KIT item (separated only)	Reworkable	21	5530123	Demo PICCO L-MF...	1	3	1.00
69	8080803	KIT item (separated only)	Expendable	42	5600224	DemoSPK 42EDFL ...	1	0	1.00

9.10.2 Item-Supplier Report

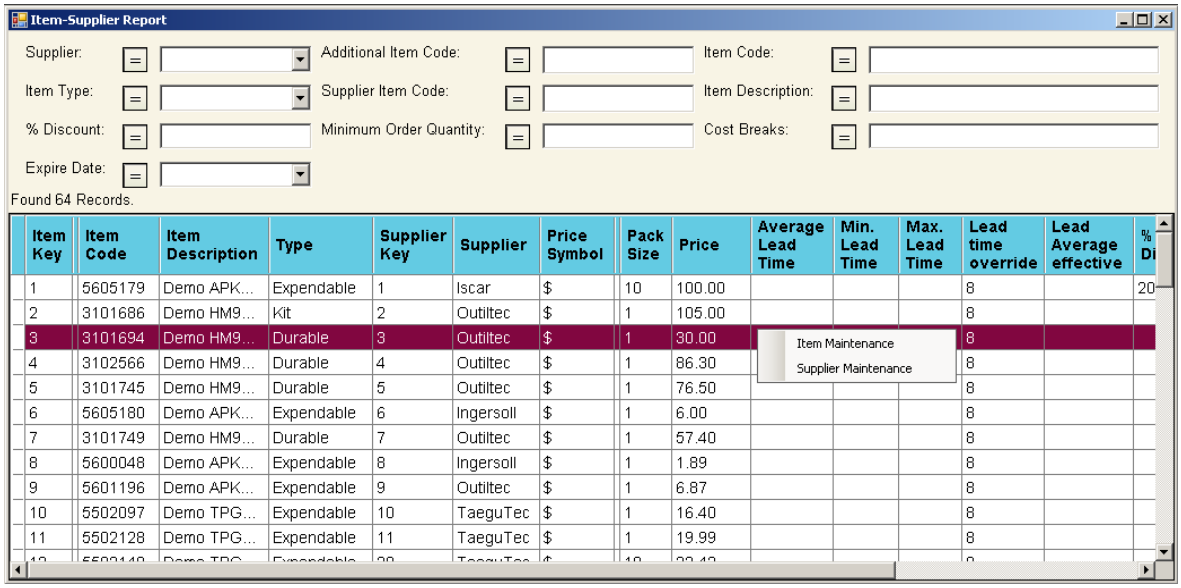
This report displays all the items that have at least one supplier definition.

Items that are supplied by more than one supplier are listed with a separate record for each supplier.

The report details the information of the item by supplier, such as his price for the item, his pack size, minimum order quantity, lead times calculated by the Monthly Usage Process and more.

Note: This report can be also used as a pricelist of supplier.

For the report, open “Menu: Reports → Items → Item-Supplier Report”.

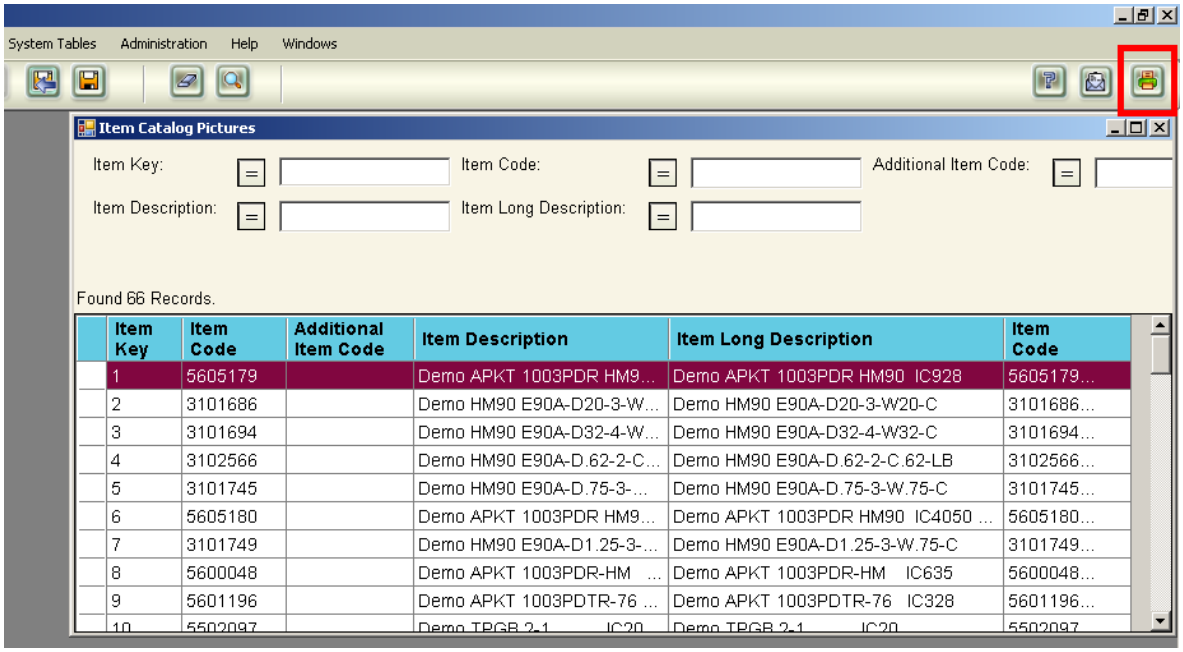


Item Key	Item Code	Item Description	Type	Supplier Key	Supplier	Price Symbol	Pack Size	Price	Average Lead Time	Min. Lead Time	Max. Lead Time	Lead time override	Lead Average effective	% Di
1	5605179	Demo APK...	Expendable	1	Iscar	$	10	100.00				8		20
2	3101686	Demo HM9...	Kit	2	Outiltec	$	1	105.00				8		
3	3101694	Demo HM9...	Durable	3	Outiltec	$	1	30.00				8		
4	3102566	Demo HM9...	Durable	4	Outiltec	$	1	86.30				8		
5	3101745	Demo HM9...	Durable	5	Outiltec	$	1	76.50				8		
6	5605180	Demo APK...	Expendable	6	Ingersoll	$	1	6.00				8		
7	3101749	Demo HM9...	Durable	7	Outiltec	$	1	57.40				8		
8	5600048	Demo APK...	Expendable	8	Ingersoll	$	1	1.89				8		
9	5601196	Demo APK...	Expendable	9	Outiltec	$	1	6.87				8		
10	5502097	Demo TPG...	Expendable	10	TaeguTec	$	1	16.40				8		
11	5502128	Demo TPG...	Expendable	11	TaeguTec	$	1	19.99				8		

9.10.3 Item Catalog Pictures

This report allows the user to build a printed catalog for each item with barcodes and pictures.

To run the report and build the catalog, open "Menu: Reports → Items → Item Catalog Pictures".



Item Key	Item Code	Additional Item Code	Item Description	Item Long Description	Item Code
1	5605179		Demo APKT 1003PDR HM9...	Demo APKT 1003PDR HM90 IC928	5605179...
2	3101686		Demo HM90 E90A-D20-3-W...	Demo HM90 E90A-D20-3-W20-C	3101686...
3	3101694		Demo HM90 E90A-D32-4-W...	Demo HM90 E90A-D32-4-W32-C	3101694...
4	3102566		Demo HM90 E90A-D.62-2-C...	Demo HM90 E90A-D.62-2-C.62-LB	3102566...
5	3101745		Demo HM90 E90A-D.75-3-...	Demo HM90 E90A-D.75-3-W.75-C	3101745...
6	5605180		Demo APKT 1003PDR HM9...	Demo APKT 1003PDR HM90 IC4050 ...	5605180...
7	3101749		Demo HM90 E90A-D1.25-3-...	Demo HM90 E90A-D1.25-3-W.75-C	3101749...
8	5600048		Demo APKT 1003PDR-HM ...	Demo APKT 1003PDR-HM IC635	5600048...
9	5601196		Demo APKT 1003PDTR-76 ...	Demo APKT 1003PDTR-76 IC328	5601196...
10	5502097		Demo TPGB 2-1 IC20	Demo TPGB 2-1 IC20	5502097

To build the Catalog, click the <Print> button on the Menu bar. This will export the list to Excel with barcodes and pictures.

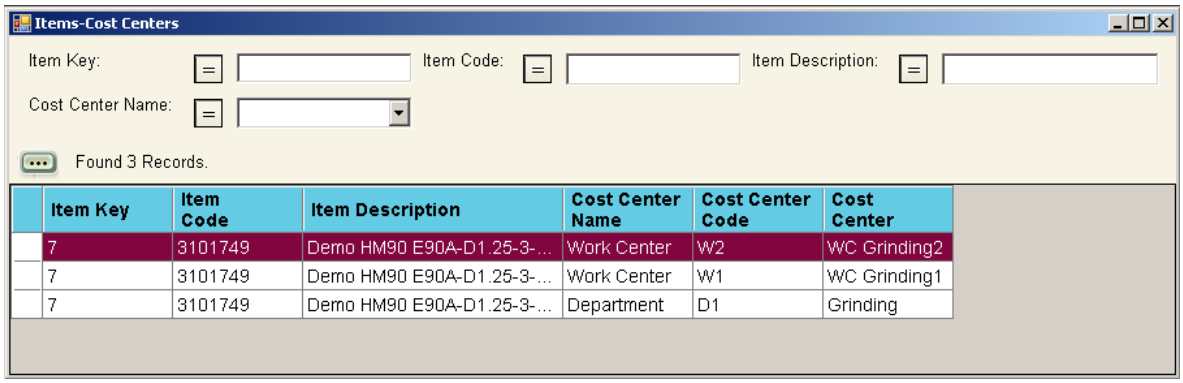
Item Catalog Pictures

Item Key	Barcode	Item Code	Item Description	Item Picture
13		5501822	Demo TNMS 431-12 IC20	
15		5502161	Demo TPGH 321-R IC70	
16		5502203	Demo TPMT 321 IC70	
17		5502222	Demo TPMR 221 IC70	

9.10.4 Items-Cost Centers

This report displays the linked items to cost centers.

To run the report, open “Menu: Reports → Items → Items-Cost Centers”.



For instructions how to link items and cost centers please refer to Chapter B: Define Items per Cost Center (section 19.3).

10 Help and Technical support

The system has a "Help" module that describes all the Topics of the MATRIX-TM software. In case a user cannot solve a problem in the system using the Help or needs to ask any question about the use of the machine and software, there is an option to send an email from the system to Technical Support.

10.1 MANAGE Help Documentation

The MATRIX-TM software has an option to open Help by topic.
When using some system features and opening screens, the help is available through the Menu bar.

For example:

1. Go to "Menu: Main → Bin" to receive a list of bins.
   The button <Help> on the Menu bar will be enabled.
2. Click the  <Help> button on the Menu bar.
   MANAGE Help will be opened to the topic "Bin".
   Usually it will describe the feature, fields and the instructions for use.

From here you can search for other topics of the MANAGE module and TOUCH module.

Also:

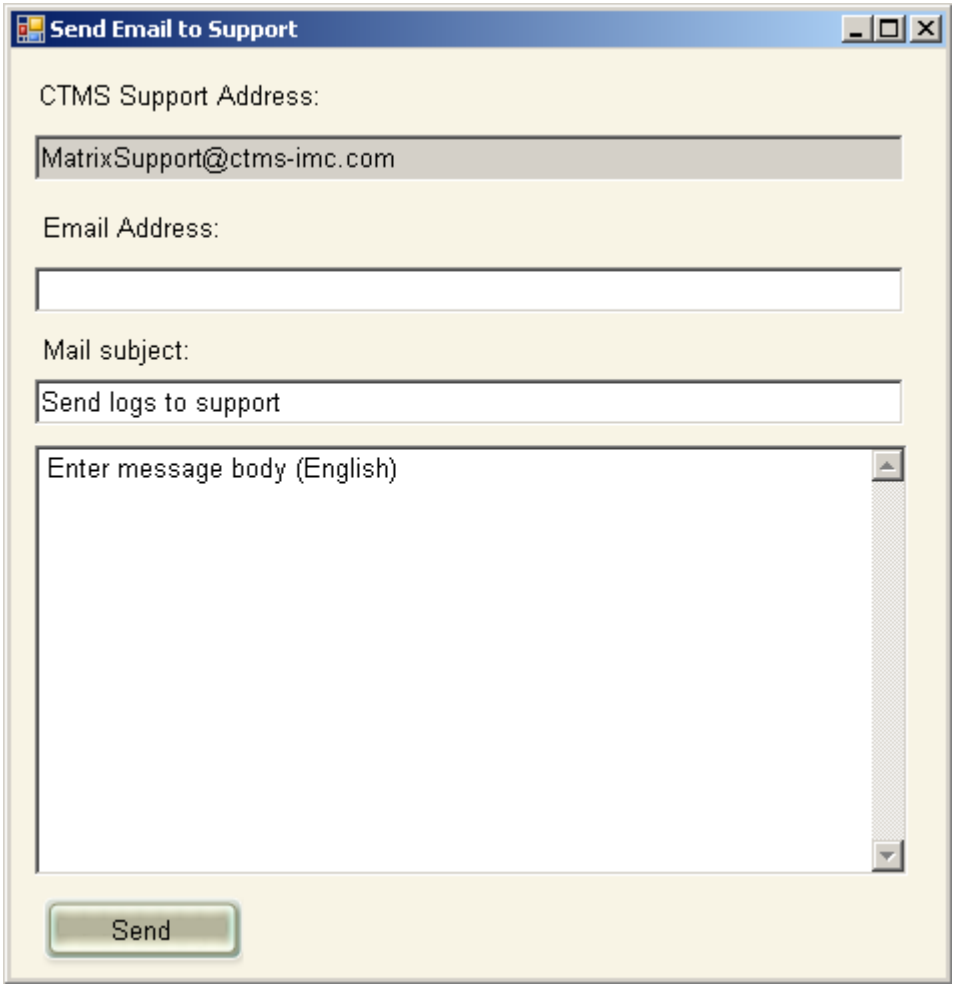
- You can view the MATRIX-TM Help by going to "Menu: Help → Help" or;
- For Help files on different languages (only those that were translated), open the MATRIX-TM installation folder and continue to the folder "…\MATRIX-TM\helpFiles\".

10.2 Sending Logs from MATRIX-TM

The user has an option to send an email directly from MATRIX-TM MANAGE to Technical Support (or to any other email address).

The e-mail will automatically attach the log files **AutoPO.[YYYYMMDD].log** and **Communication.[YYYYMMDD].log** that the system created for the same day, in order to help resolve the issue.

1. Go to "Menu: Help → Send Email to Support".
   The following screen will appear:



2. Here you can set the "Email Address", "Mail subject".
   Use the message box to describe the problem and click <Send> button.
   You will be notified about the success or failure of the sending.

In case of delivery failure:

1. Go to "Menu: Administration → System Options".
2. Search system options by the group "Email".
3. Search for **Option 705** of "Mail server" and verify that the option value was set correctly. Check for other email options as well.

10.3 Create an Email Report

The user has an option to create a report draft and send it through email.

When working with generic search screens, the  <E-Mail> button is available through the Menu bar. This feature uses the email program installed on your PC and creates an email draft that you can edit and send.

For example:

1. Go to "Menu: Main → Bin" to receive a list of bins.
   The button <E-Mail> on the Menu bar will be enabled.
2. Click the  <E-Mail> button on the Menu bar.
   An E-Mail draft will be created on your Desktop, attaching to it an MS-Excel file of Bins report. By using the email program you can edit the email address, subject, etc.

CHAPTER C: MATRIX-TM TOUCH MODULE

TOUCH Module Preview

The TOUCH module has been planned and designed around the typical method of working. Our target is to improve, control and shorten the work process and access to data.

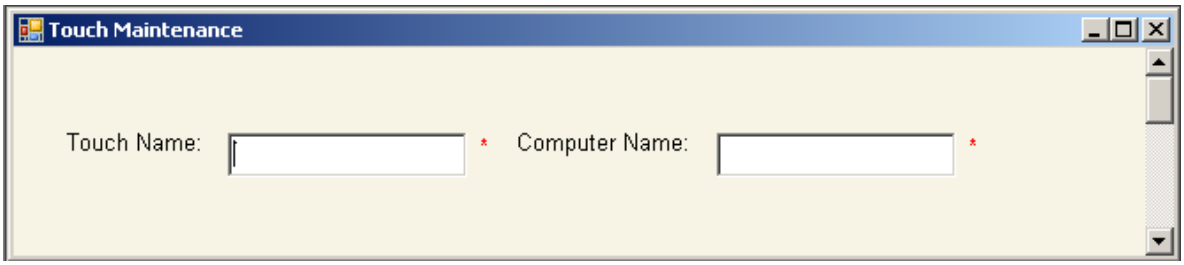
The system allows the worker to perform a variety of operations with the MATRIX dispenser, such as issuing, returning, counting etc, all through an easy to use touch screen.

11 Required pre-definitions for TOUCH system

In order to be able to work on the TOUCH module with the cabinets defined in the database, the user must first login to the MANAGE module and create touch definitions.
Login to MANAGE system and follow these instructions:

11.1 Define the Touch definition for computer

1. Open "Menu: Administration → Touch Machine → Touch Machine Administration".
2. Click the <Add> button.
   The "Touch Maintenance" screen will be displayed. The user must define here the Touch definition for the computer.

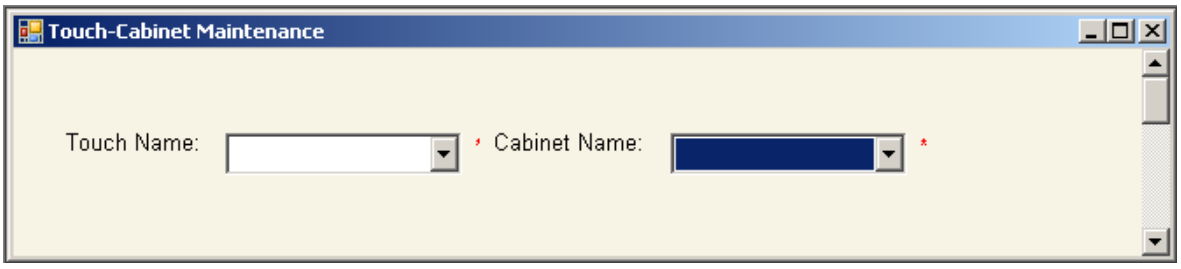


3. Fill the "Touch Name" field with a significant value that describes the name of the TOUCH workstation.
   Fill the "Computer Name" field with the exact name of the **PC that will run TOUCH** (the value can be taken from: Go to **that computer** Properties, follow tab "Computer Name", click <Change…> button, use the value of "Computer Name" field).
4. Click the <Save> button.

11.2 Define the Touch - Cabinet definition for computer

1. Open "Menu: Administration → Touch Machine → Touch-Cabinet".
2. Click the <Add> button.

The "Touch-Cabinet Maintenance" screen will be displayed. The user must define here which cabinets to connect to the previously created touch name.

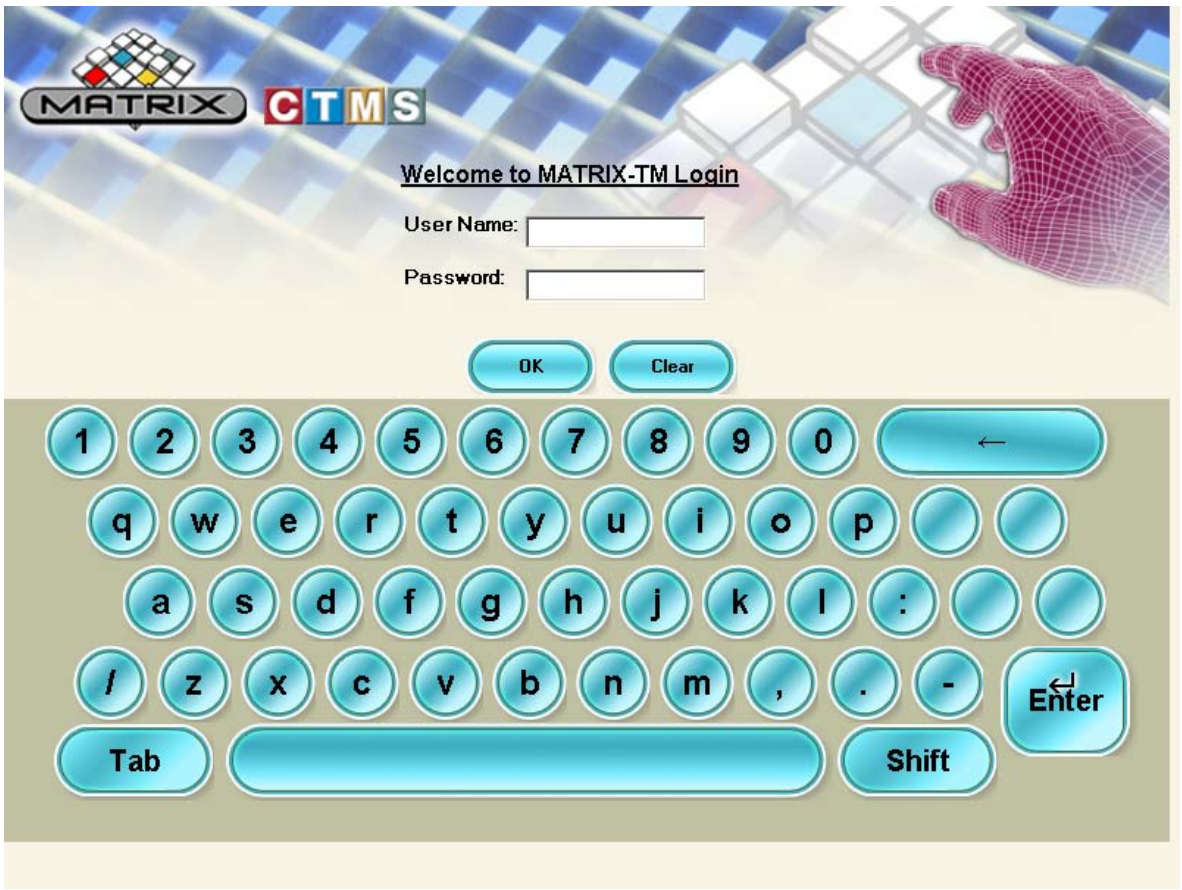


3. For field "Touch Name" select the previously created Touch name.
   For field "Cabinet Name" select the cabinet you want to attach to the Touch.
4. Click the <Save> button and close the screen.
5. In order to attach more cabinets to current TOUCH, repeat steps above.

12 TOUCH Interface and Initial operations

12.1 Login to the TOUCH Module

1. Run the TOUCH module from the Start menu (or by link on your desktop) to receive the Login screen.
2. By using the virtual keyboard enter your user name and password or use the barcode reader to read the number marked on your employee card.
3. Press on the <OK> button or <Enter> on the keyboard.
   The system will check the data entered and if confirmed, you will login to the system.


MATRIX
CTMS
Welcome to MATRIX-TM Login
User Name:
Password:
OK
Clear
1 2 3 4 5 6 7 8 9 0 ←
q w e r t y u i o p
a s d f g h j k l :
/ z x c v b n m , . -
Enter
Tab
Shift

12.2 Main TOUCH Menu

After login you will receive the Main Menu screen:



Press on the required operation button:

Issue – Issue items

Receive – Enter orders from vendor into the cabinet (restocking)

Return – Return goods back into the cabinet

Transactions – Allows authorized users to correct issue transaction quantities per User

Adjust Item – Adjust stock quantities of items

Count Bins – Stock counting of the cabinet

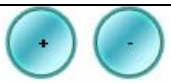
Transfer Order –Transfer items to another cabinet against an internal order

Receive without Order – Enables to receive an item without having priory created purchase order in Manage module.

Important! The system will only display the user's authorized options. In order to set the authorizations, read Chapter D: Controls Authorization (section 18.3.2).

12.3 Operating Principles

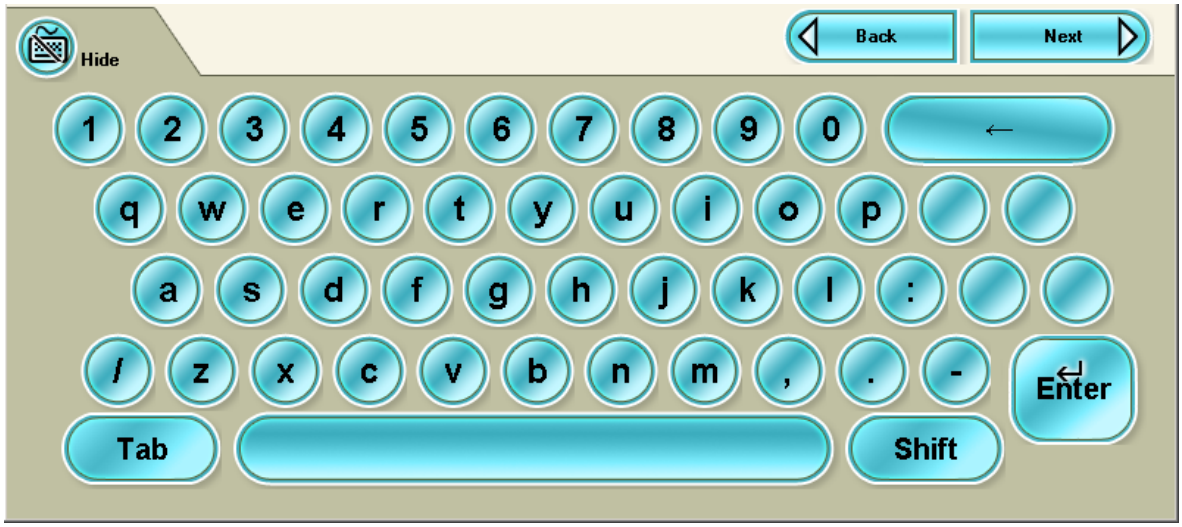
12.3.1 Basic System Operating Buttons

Option name	Button	Description
Main Menu		Return to main menu
Next		Go to next screen
Back		Return to previous screen
Browse		Choose from adjacent list
Clear		Clear data
Search		Start searching data
Advanced		Advanced search by item classifications
Group		Search Item by Group
Show		Display the virtual keyboard
Hide		Hide the virtual keyboard
Quantity buttons		Change quantities in selected bin
OK		Confirm last operation
Cancel		Cancel last operation

Exit		Exit the system
Help		Run Help file
Exit		Exit the system in emergency cases

12.3.2 Virtual Keyboard

By using the virtual keyboard you can key in data to the screens.



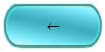
Operating buttons:

Numbers – Key in the number that appears on the button.

Letters – Key in the letter in the chosen language.

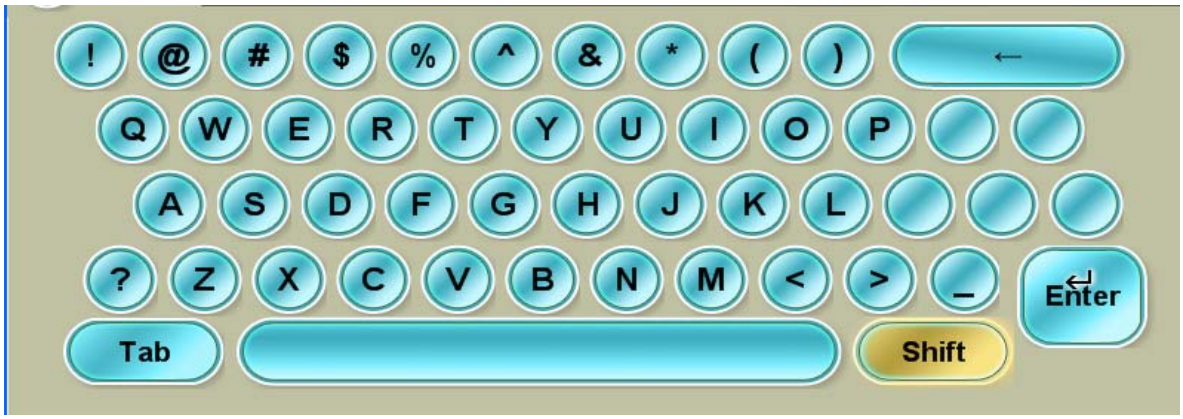
Tab – Moves the cursor to the next data field on the screen.

Enter – Pressing this button initiates a search based on the data keyed in.

Bksp  – Deletes last letter keyed in.

Shift – Pressing this button will activate the upper case content of each button or will switch the keyboard language.

The virtual keyboard will look as below after pressing on the Shift button:



Displaying the virtual keyboard:

Displaying the virtual keyboard in relevant screens is done by pressing on the 

<Show> button.

Hide the keyboard by pressing on the 

<Hide> button.
Pressing one of the buttons will make it light up in yellow.

12.3.3 Barcode Interface

The purpose of this interface is to save time by reading data with barcode.
The reader will transfer the data to the field where the cursor is positioned at the time, instead of the user having to key in the data.

Important! The Barcode reader is usually configured to add a prefix to the read barcode (the information is available from the Barcode supplier or its hardware documentation).
In order to work with barcodes, the barcode configured prefix must fit the prefix expected to be read in the MATRIX-TM software. To fit the prefix, set the **System Option 1012** (Barcode prefix) in the MANAGE module.

The barcode can be used in several screens:

1. **Login to the system:**

If the user has a badge with a barcode ID number, he can login automatically to the system by reading the barcode with the barcode reader or otherwise manually input the user name and password.
To enable login with a bar-coded badge, define the **'User Code'** / **'Badge Number'** for the user in the MANAGE module. For more information, read Chapter D: Users (section 18.2).

2. **Input Cost Centers in the 'Issue' process:**
   If the cost centers are configured as Numerical or Alpha-numerical fields (and not as a list) in the MANAGE module, the user can input the values by reading them by barcode.

3. **Search Item:**
   In all the search screens where the system expects to get item information like Item Code or Item Description, the user can read a barcode of the item. As a response, if only one match was found, the next screen of the process will appear. If more than one match is found, a filtered list will appear that includes only the relevant records.



Note: Sometimes the Barcode reader adds additional characters to the number (for example barcode number 3101749 reads as **0**3101749). In this case, set value for the **'Barcode'** field of the item in the MANAGE module exactly as the barcode reader reads it. For more information, read Chapter B: Item (section 5.4).

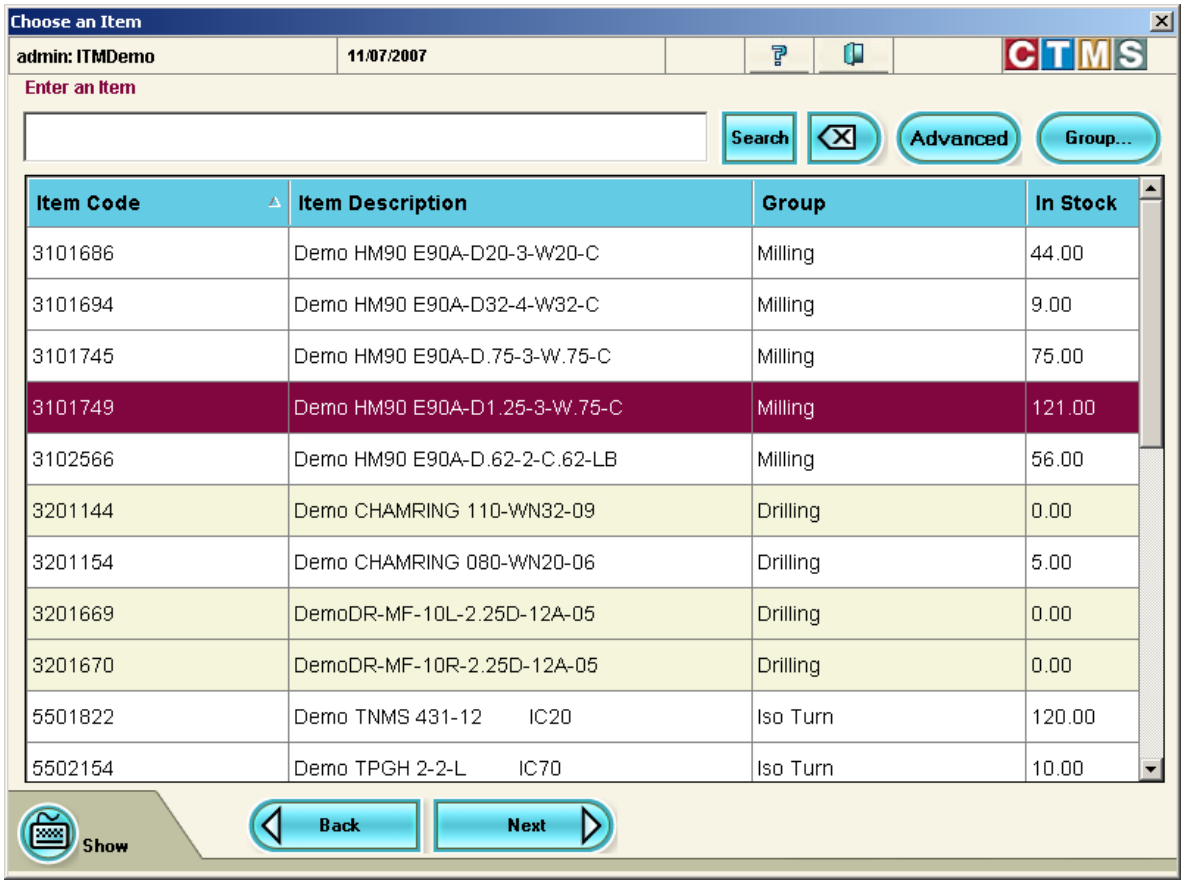
4. **Search Order:**
   In any search screen where the system expects to get an item or order information, the user can read the barcode of the order that matches the **'PO Code'** value after which a screen with a filtered list will appear that includes only the relevant order line/s.
   For example, 'Receive' and 'Transfer' processes.

5. **Search Bin in the 'Count Bins' process:**
   In the search screen of the 'Count Bins' process where the system expects to get a bin or item information, the user can read the barcode of the bin that matches fully or partially to the **'Bin Code'** value after which a screen will appear with a filtered list that includes only the relevant records.

12.3.4 Search Screens

Through this screen you will be able to search various data that exists in the system.

Important! The quantity displayed in 'In Stock' column includes all the quantities excluding the stock of Reworkable items in bins marked as 'Used' since those items are not available for use.



Search for the record:

There are a number of methods to search for a record and to get it displayed in the list: Use one of the Search methods described bellow.

Select the record:

After finding the record by one of the methods mentioned before, select the requested record in the list and press on the <Next> button (or double press on the record) in order to continue the process.

Note: The system enables to sort the records and to resize the columns.
Pressing on the header of the relevant column (Item Code, Supplier Code, PO, etc) will sort the records in **ascending** order and another press on will change the sort to **descending** order.
Resize the columns by pressing and dragging the separator line between the headers of the columns.

12.3.4.1 Search with no filter

Press on the <Search> button to display all records and scroll down to the desired record.

12.3.4.2 Search by Barcode reader

Set the focus on the location line and scan the barcode.
The barcode will be entered into location line and only the relevant records will be displayed in the list.
See more information in Chapter C: Barcode Interface (section 12.3.3).



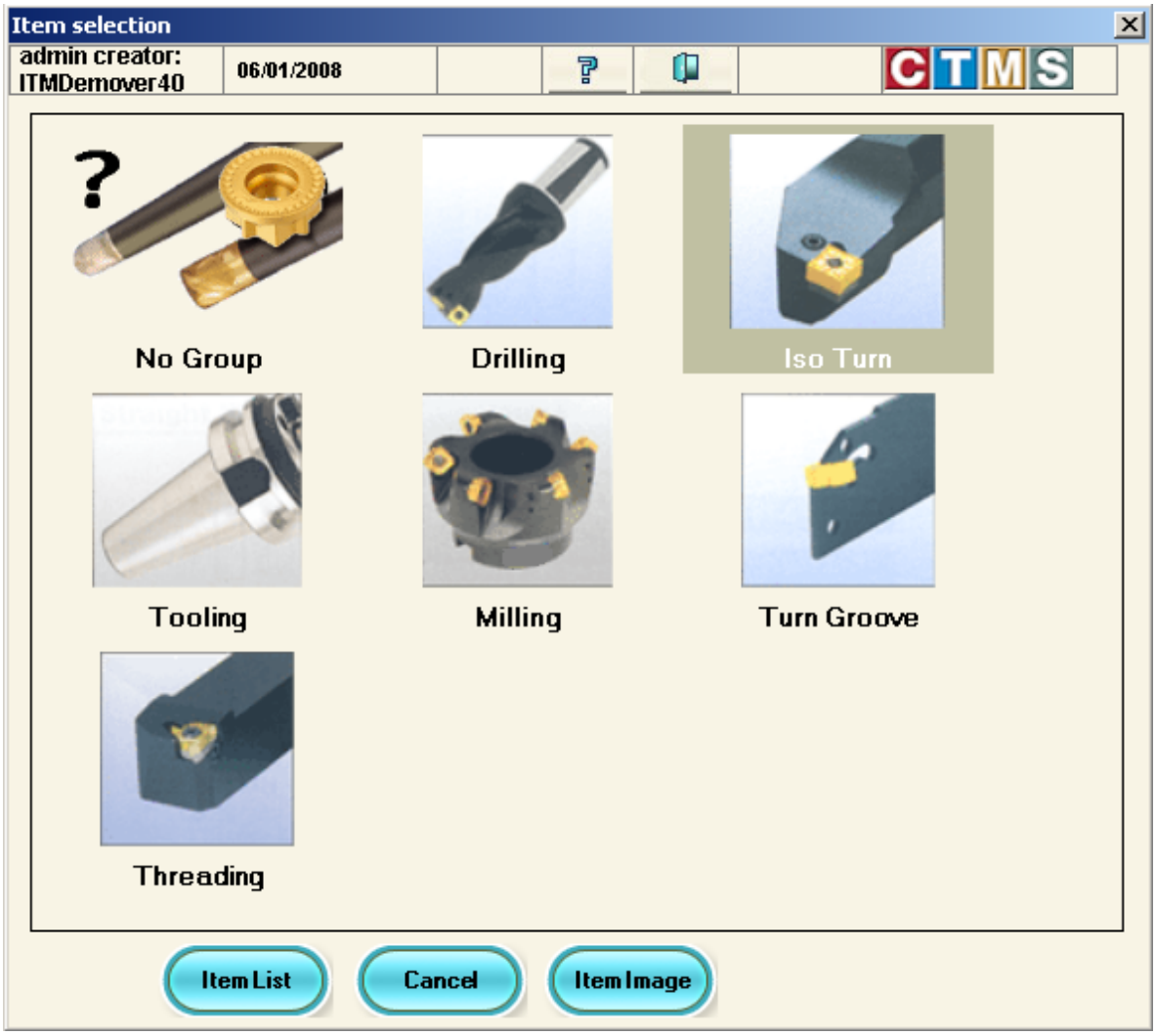
12.3.4.3 Search by Virtual keyboard

Press on the <Show> button on the bottom part of the screen in order to display virtual keyboard. Enter item code, item description, or part of them and press on the <Search> button.

12.3.4.4 Search by Group or by Item Image

This search allows you to locate an item by its Group or Image.

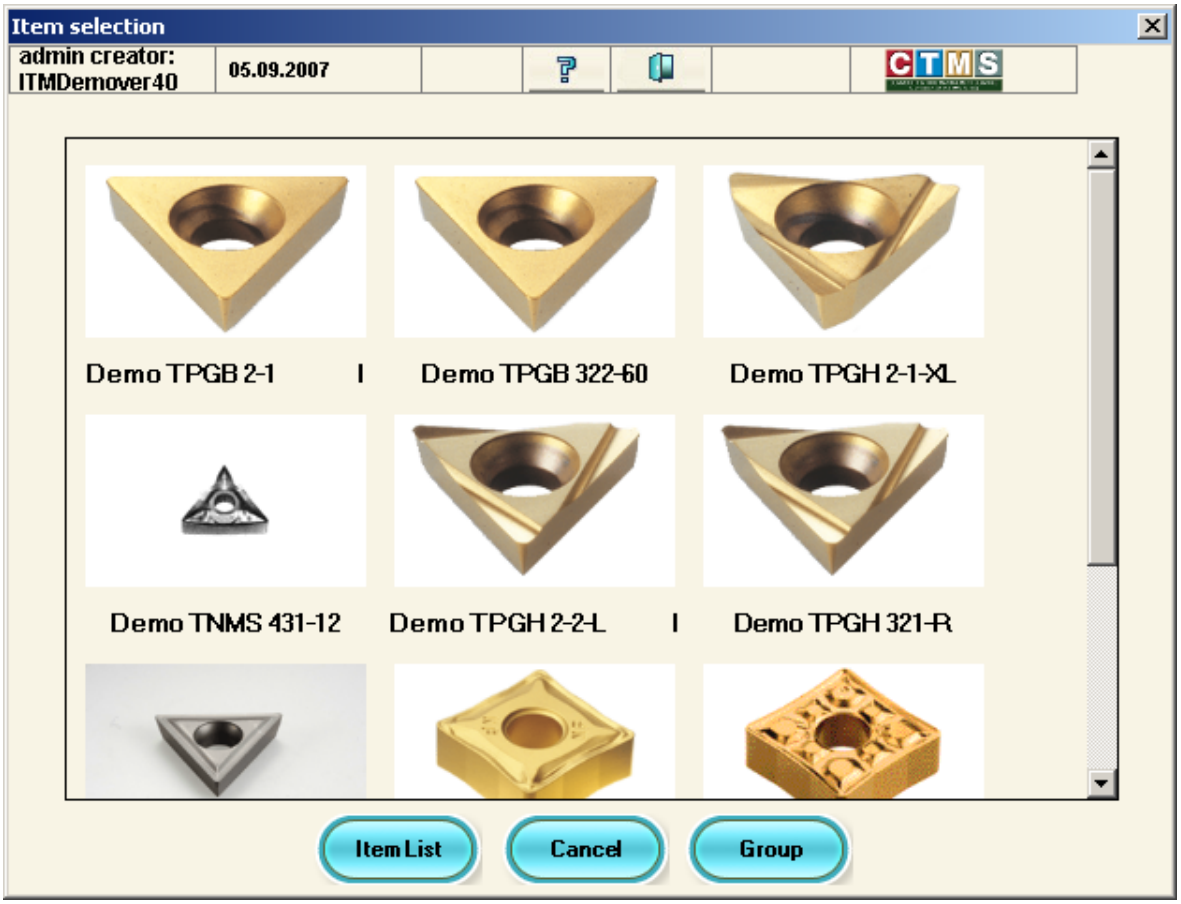
1. Press on the <Group> button in the "Choose an Item" screen.
   The following screen will appear:



2. Select the appropriate product group and;

3. To view all the items of the selected group as a **LIST**, press on the <Item List> button. In order to return to the full list, open the window again and press on the <Cancel> button.

4. To view all the items of the selected group as **IMAGES**, press on the <Item Image> button. The screen will display item images and descriptions:



To return to the groups, press on the <Group> button.

To select a particular item, select the item image and press on the <Item List> button.

12.3.4.5 Search by Advanced

This option allows you to search an item by its application and by additional fields.

1. Press on the <Advanced> button in the "Choose an Item" screen.

The following screen will appear:



Fields description:

Application Name: This is a **constant** field that automatically generates a list of applications linked to the 'Main Family' and 'Sub Family' which have been assigned to an Item. This list is not seen in Manage.

Main Family: This is a **constant** field which displays a list of system defined classifications for 'Main Family'. Only those classifications to which an item has been linked will be displayed.

Sub Family: This is a **constant** field which displays a list of system defined classifications for 'Sub Family'. Only those classifications to which an item has been linked will be displayed. The list of Sub Family classifications is filtered according to the selected Main Family.

Additional Fields are added to the **Item** entity in the Manage module as described in Chapter B: Additional Fields (section 5.5).

In this example, Item entity has four additional fields of different types added by the Manage module: The field 'Size' (**numeric** type) will display a list of used values and numeric keyboard for input; the field 'Color' (**text** type) will display a list of used values and alpha-numeric keyboard; the field 'Tested' (**boolean** type) and the field 'Test Date' (**date** type) will display the list of used values.

2. Insert the data for filtering the items on the search screen and press on the 

<OK> button. In order to cancel the filter, open the 'Advanced' window again and press on the <Cancel> button.

12.3.5 Adjust Search Screens

This feature enables to adjust the search screens and grids per database.

The following operations are available for change and for save:

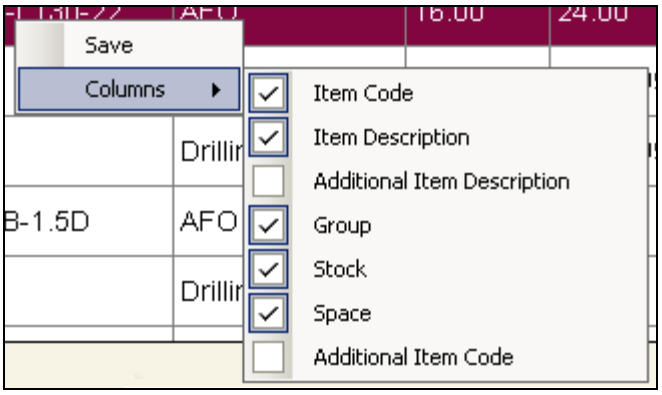
- **Adding / Removing** columns to the view by the right-click popup menu
- **Reducing / Enlarging** columns width by dragging
- **Relocating** the columns to different position by dragging
- **Sorting** the data by selected column by pressing the column header

See below the example for the view before changes and after changes:

Figure 1 displays example for search screen before changes.

For example, open the search screen of 'Receive without Order' option and make the following changes:

1) Click the right mouse-button to get the popup menu and expand the **'Columns'** option. This option will display all the columns that can be added / removed. Check the columns that you wish to display and uncheck those which are not relevant, for example 'Additional Item Code' and 'Additional Item Description'.



2) **Enlarge** column width by dragging with mouse, for example 'Item Description' and 'Space' column.
3) **Relocate** column to different position by dragging it with mouse, for example relocate 'Group' column after 'Item Description'.
4) **Sort** the view by clicking the column header, for example 'Item Code' header.
5) Click the right mouse-button to get the popup menu and click the **'Save'** option to save all the changes done. Next time that you will open this screen it will be loaded by the saved definitions.

Figure 1: Search screen before changes

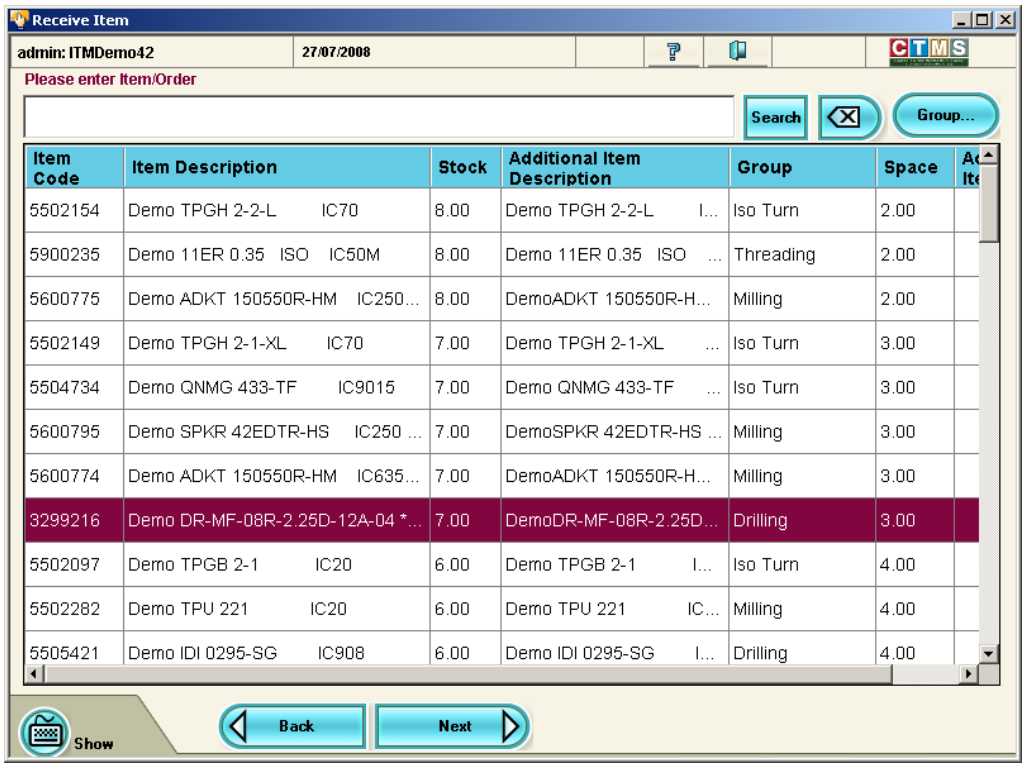
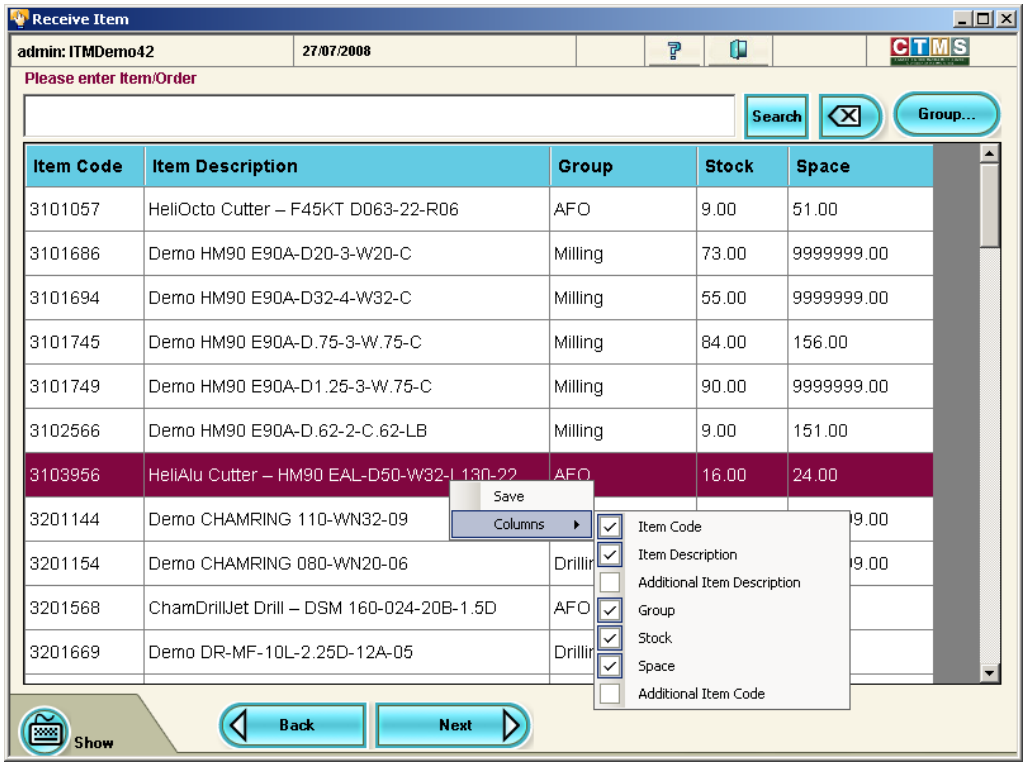

Receive Item
admin: ITMDemo42
27/07/2008
Please enter Item/Order
Search
Group...
Item Code
Item Description
Stock
Additional Item Description
Group
Space
5502154 Demo TPGH 2-2-L IC70 8.00 Demo TPGH 2-2-L I... Iso Turn 2.00
5900235 Demo 11ER 0.35 ISO IC50M 8.00 Demo 11ER 0.35 ISO ... Threading 2.00
5600775 Demo ADKT 150550R-HM IC250... 8.00 DemoADKT 150550R-H... Milling 2.00
5502149 Demo TPGH 2-1-XL IC70 7.00 Demo TPGH 2-1-XL ... Iso Turn 3.00
5504734 Demo QNMG 433-TF IC9015 7.00 Demo QNMG 433-TF ... Iso Turn 3.00
5600795 Demo SPKR 42EDTR-HS IC250 ... 7.00 DemoSPKR 42EDTR-HS ... Milling 3.00
5600774 Demo ADKT 150550R-HM IC635... 7.00 DemoADKT 150550R-H... Milling 3.00
3299216 Demo DR-MF-08R-2.25D-12A-04 *... 7.00 DemoDR-MF-08R-2.25D... Drilling 3.00
5502097 Demo TPGB 2-1 IC20 6.00 Demo TPGB 2-1 I... Iso Turn 4.00
5502282 Demo TPU 221 IC20 6.00 Demo TPU 221 IC... Milling 4.00
5505421 Demo IDI 0295-SG IC908 6.00 Demo IDI 0295-SG I... Drilling 4.00
Show
Back
Next

Figure 2: Search screen after changes



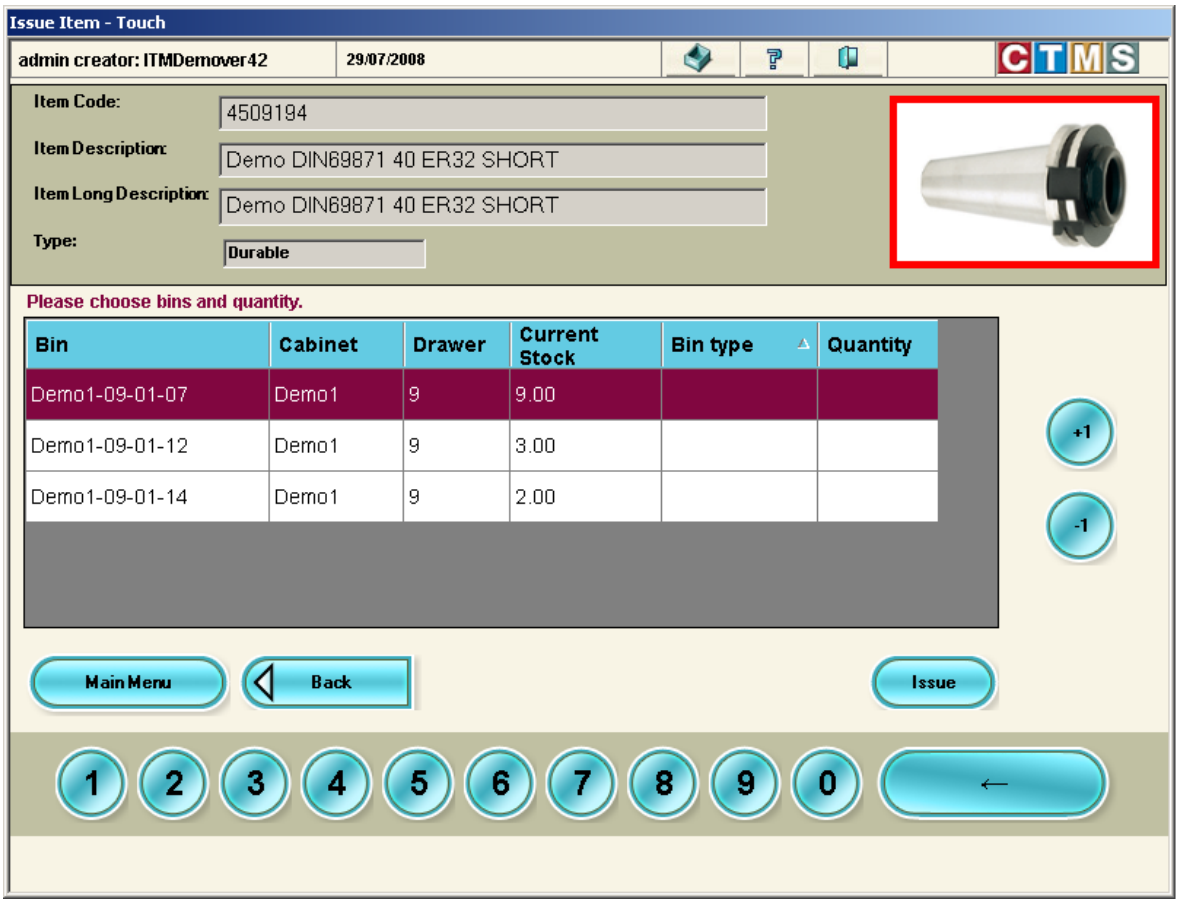
12.3.6 Item Information

This feature enables to display in TOUCH application additional information regarding the item from the MANAGE application.

In any module in Touch where item image is displayed on top of the window, user can press on the image and the system will display "Item Information" screen.

Example:

1. Open any module; select any item and press <Next> to get the screen with the item image.



2. Press on the image area.

   The "Item Information" screen will be displayed. The buttons on top represent tabs which display the data from these tabs in Manage module:

   'General' button for general data.

   'Supplier' button for list of suppliers.

   'Additional Fields' button for additional fields of the item.

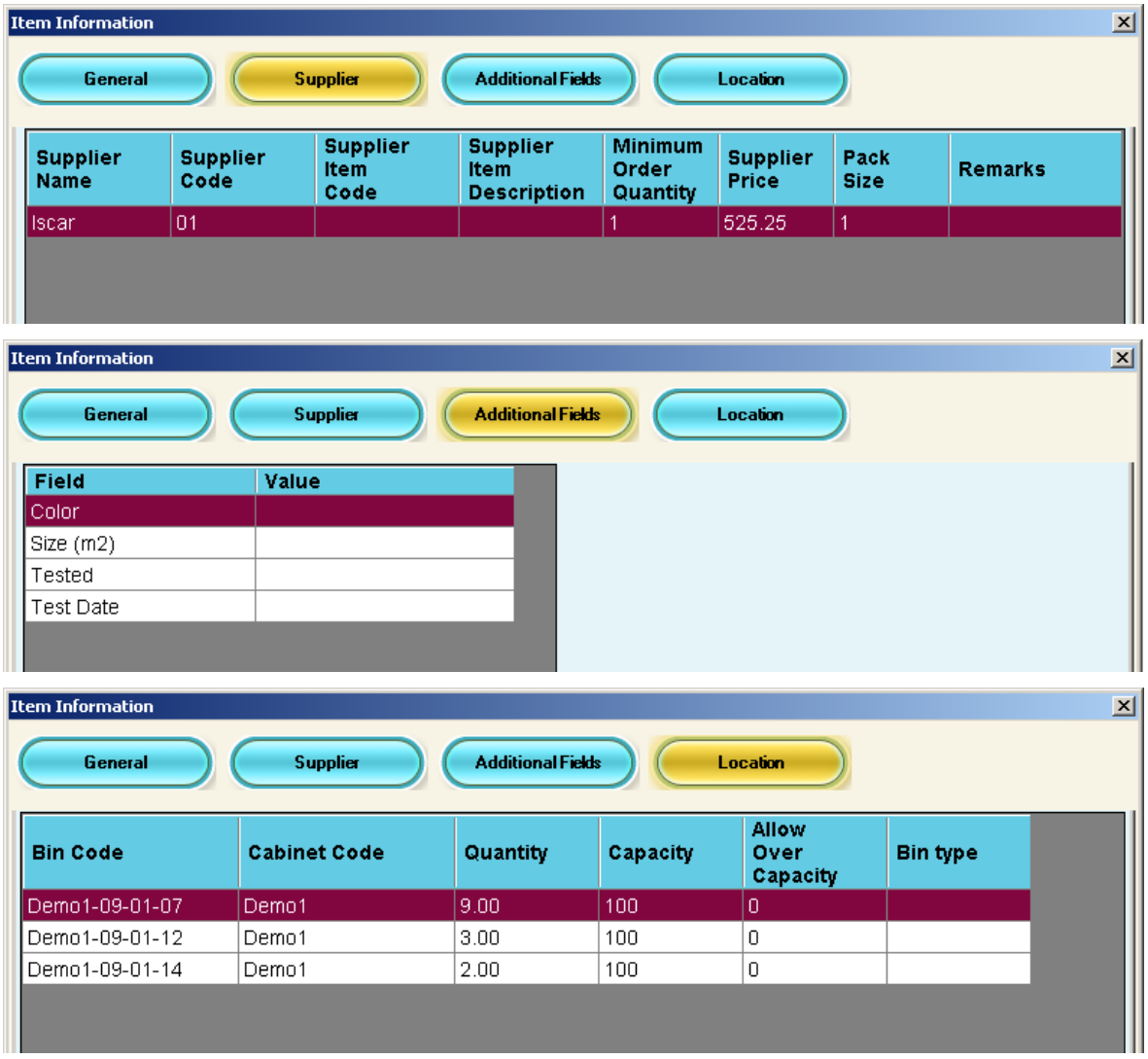
   'Location' button for all the bins that store the item.

   'Cost Centers' button (in 'Transactions' module only) for the cost centers for which the item was issued.

   This data is displayed only for view!

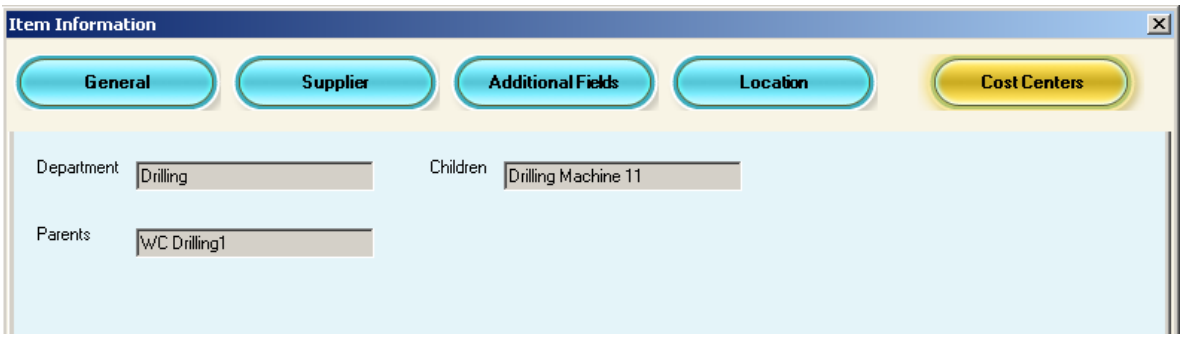


3. Switch to the other tabs by pressing on the buttons.



4. To close the window, press on the <OK> button.

Please notice! When pressing on the image in 'Transactions' module, it will display additional tab called 'Cost Centers'. The tab will display the cost centers for which the item was issued.


Item Information
General
Supplier
Additional Fields
Location
Cost Centers
Department
Drilling
Children
Drilling Machine 11
Parents
WC Drilling1

13 System operations



13.1 ISSUE Item

This module enables to a user to issue items from the cabinet.

Press on the <Issue> icon on the Main Menu.

The following operations have to be performed as a part of the issue process:

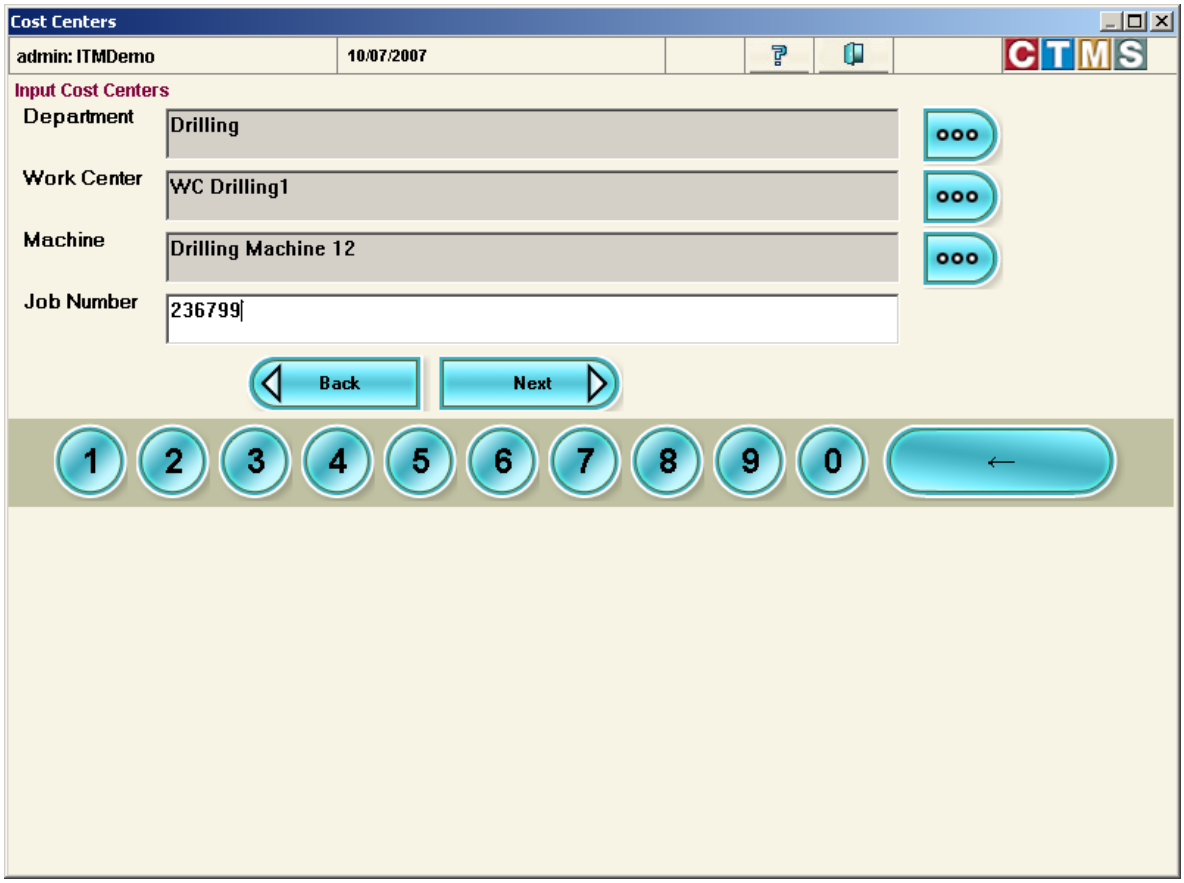
- Choose cost center/s.
- Choose item.
- Choose bins and quantities to be issued.
- Execute the Issue transaction.
- Stock Shortage.

Choose cost center

In the Issue process, before the user selects items, the user must select the cost centers to which the desired items will be issued. However, the system administrator can configure the system in the way that cost center information will not be mandatory.

The number of cost center headers, their names, input types (Choose from list, Numeric keyboard, Alpha-Numeric keyboard or BarCode), possible and default values and hierarchy between them and more options (like required fields or not, changeable or not) are configured by the MANAGE module.
For more information read Chapter D: Define Cost Centers (section 19) and Chapter D: User Cost Centers (section 20).

Example:
The following screen shows a sample configuration of four cost center headers:



If the cost center headers are defined as a hierarchy, they need to be entered in order: Department → Work Center → Machine and the Job Number. Otherwise, the order will not matter.

Setting the cost centers for the cost center headers can be done in several ways depending on the cost center header type:

Department: Cost center header of type 'Choose from List'. Press on the  <…> button will open a list of optional cost centers for this header. Select the desired cost center and press on the  button.

Work Center: This cost center header type is also of type 'Choose from List'. If this cost center header is defined in hierarchy with the one before it, the list of cost centers will be displayed automatically after selecting the previous cost center header. Otherwise the user will have to open the list manually.

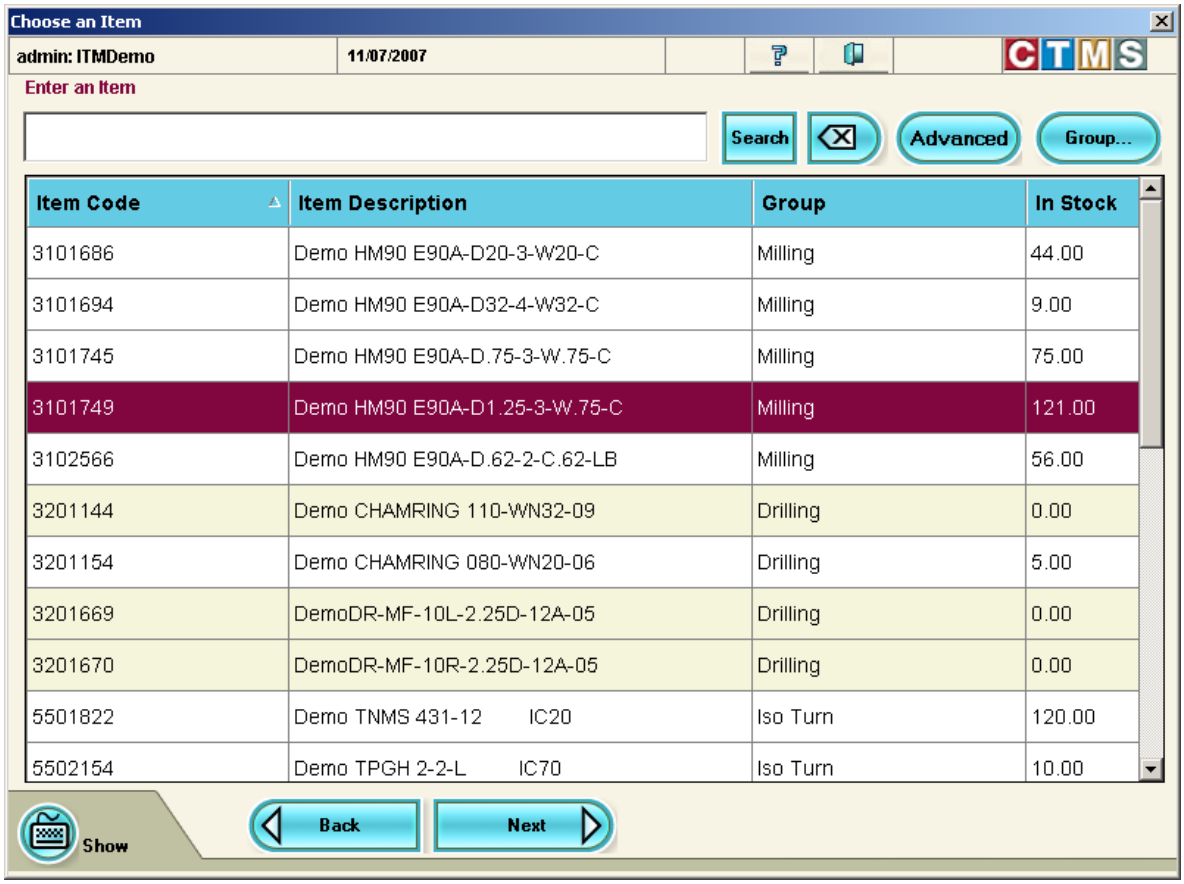
Machine: This cost center header type is like Work Center.

Job Number: Cost center header of type 'Numeric Keyboard'. Touching it will dynamically display the Virtual Keyboard. Use the Virtual Keyboard to enter the data manually or use the Barcode Reader.

After setting the cost centers, press on the <Next> button.

Choose item

Next, the search screen will appear that enables the user to search and choose an item. Use the search methods described before (in Chapter C: Search Screens (section 12.3.4)) in order to locate the item.



Note: If the desired item has a stock shortage, meaning the quantity in stock is zero, you can select the item in order to send an alert about the shortage. For instructions, read the "Stock Shortage" paragraph below.

Choose bins and quantities to be Issued

If you select an item of KIT type, for instructions please read the 'Issue a Kit' paragraph below.

Otherwise, the following screen will appear:



The top part of the screen displays the selected item's data and picture.

Beneath the item data a table appears containing a record of all bins that are associated with the chosen item.

Note: In the line marked in red displayed an explanation of the next step to be performed.

The column named "Current Stock" contains the actual quantity stored in each bin.

In the "Quantity" field you can choose the quantity to issue for the selected item.

There are two ways to select the quantity:

1. By using the numbers from the virtual keyboard.
2. By pressing on the Add/Reduce buttons +10 or -10.

If the quantity in the chosen bin is exceeded, then another press on the Add button will move the cursor automatically to the next bin in the table.

Note: The quantity that will appear on the Add/Reduce buttons is the default issue quantity defined for that item in the MANAGE system. If no default issue quantity is defined, then the Add/Reduce buttons will be +1/-1.

Note: If the field “Issue Any Quantity” is marked in the MANAGE system under the Cabinet details, then you have the possibility to issue any quantity in the bin. If this field is not marked, you can issue only the full quantity that exists in the bin or not issue at all.

Issue

1. After selecting the quantity of the chosen item from each bin, press on the 

<Issue> button. The drawer light will come on.
2. Open the drawer and take out the items issued by the entered quantities.
3. Close the drawer. After closing the drawer the stock quantity will be updated in the system.
4. Press on the 

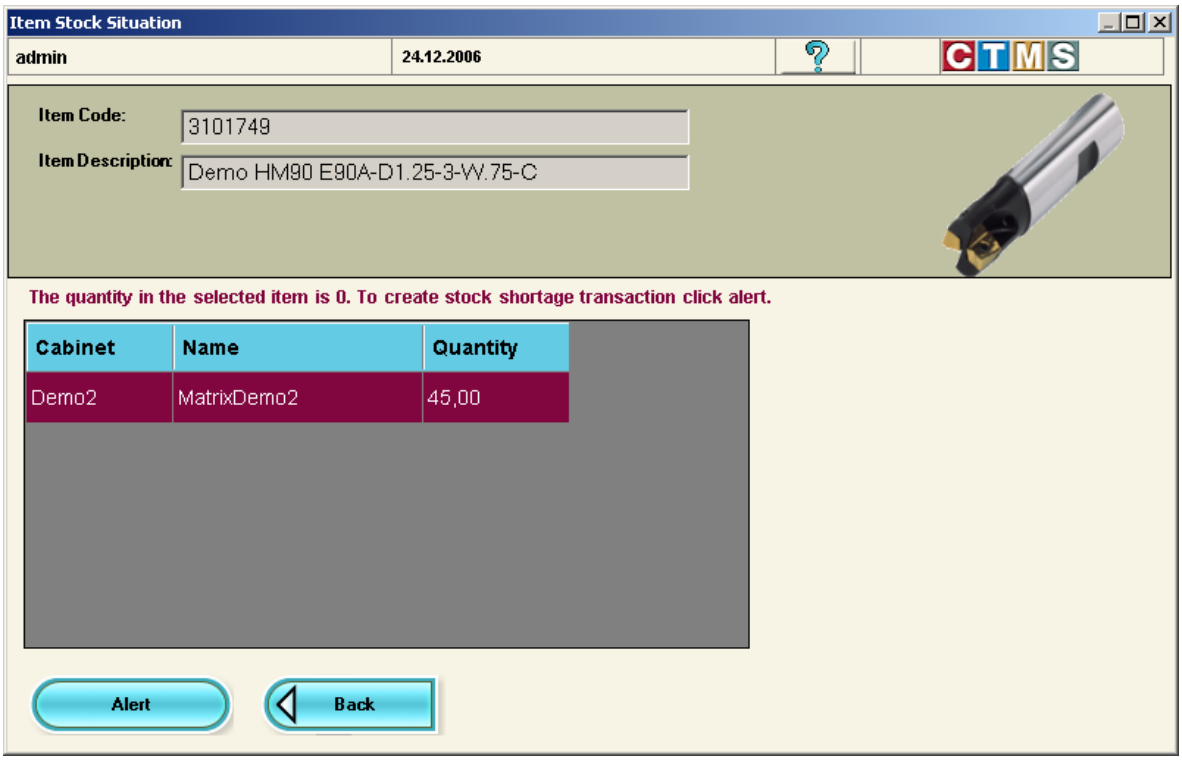
<Exit> button will take you directly to the Login screen.

Important! You can issue from only one drawer at a time, but you may issue from multiple bins within that drawer.

Stock Shortage

In case the item is out of stock, the user can send an Alert that will create a stock shortage transaction ('Zero Issue' transaction) and also send an email to the responsible stock manager.

1. In the search item screen, select on the item record that is out of stock (the line will be lightened in color) and press on the <Next> button. The "Item Stock Situation" screen will appear:



This screen displays (at the top part) the Item Code and Item Description. Beneath that section there is a display of all existing stock of that item in other cabinets or warehouses that are not connected to the currently accessed TOUCH system.

2. Press on the <Alert> button. This will create a stock shortage transaction and send an alert by email to the responsible stock manager.

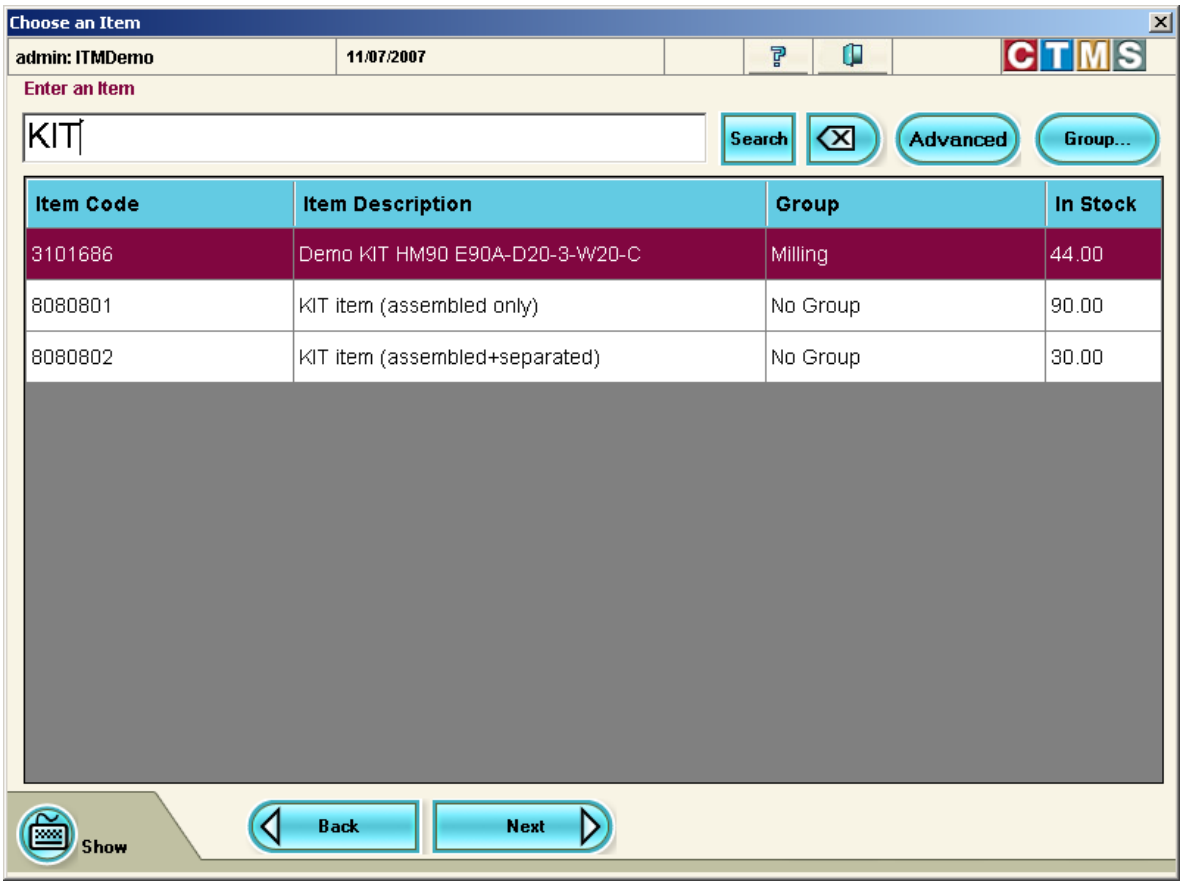
Note: The email for alert is taken from the cabinet details.

13.1.1 Issue a Kit

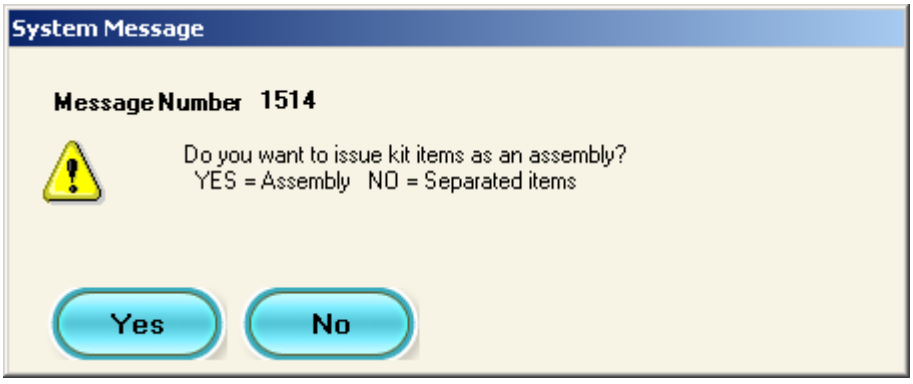
Kit component items can be located all together in one bin and issued as one complete assembled item or; each kit component item can be located in its own bin, so when issuing, the components will be issued from different bins drawer by drawer,

1. Press on the **<Issue>** Icon and enter the relevant cost centers as usual.

2. Then search for kit type items. For example, if you set up the Kit using the word ”KIT” in the item description, then searching KIT will bring up all kits in the cabinet. In the screen below, the result is shown in the top part of the screen.



3. Select Kit item and press on the <Next> button.
4. If you receive the following pop up question, execute this step. Otherwise, continue to the next step.



The pop up question allows you to issue the kit items as an assembly from one bin or as separated items from multiple bins.

Yes for Assembly:

Select <Yes> to issue all the kit's component items from one bin as a regular issue of items. The system will display the regular window where you will be required to fill in the quantities for issue. In this case there is no need to continue with the following steps, but proceed to execute a regular issue operation.

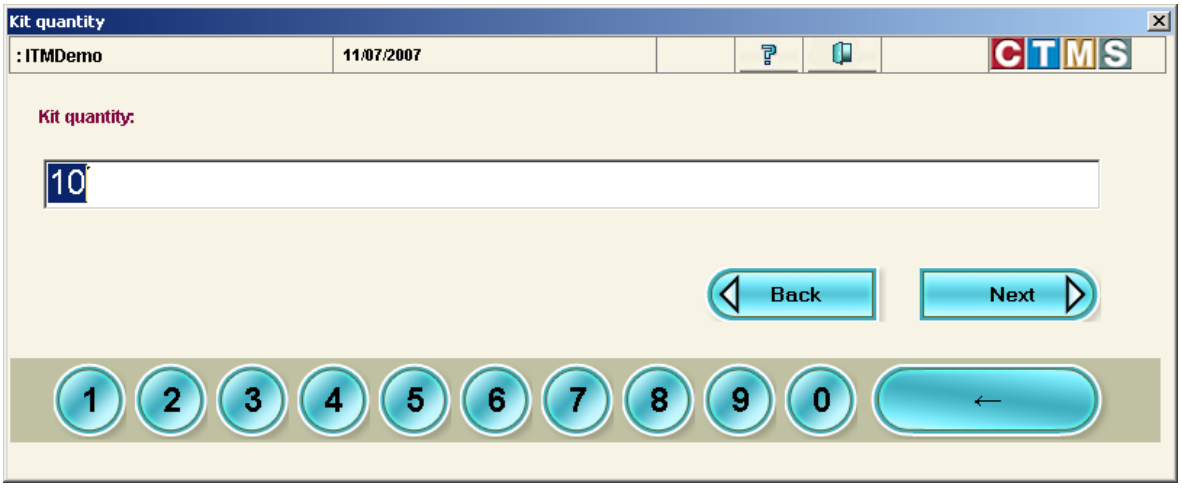
Or;

No for Separated Items:

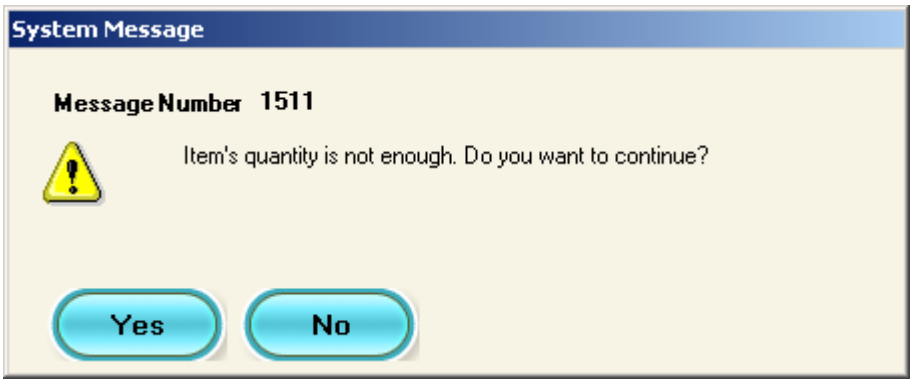
Select <No> to issue the kit's component items from its own separate bin. A series of steps will be initiated. In this case please continue to the next step.

Note: Receiving this message means that the system was set to allow selection between two options for issuing a kit. In order to limit issuing kit components only from separate bins and thus avoiding this message, set System Option **1014**.

5. The following window will pop up requesting the user to enter the quantity of kits to issue.



6. Enter quantity and press <Next> to proceed to the next step.
   If some items in the kit are not in stock or not enough, the following message notifying about the shortage will appear.



If you choose <No>, the issue process will be canceled.

If you choose <Yes>, the system will continue the issue process like described in the next step, considering the remained stock of the kit component items.

7. A list of the kit's component items and their respective quantities will be shown. The displayed quantities represent the respective quantities of each component item in that kit multiplied by the quantity of kits to be issued.


Issue Kit Item
admin: ITMDemo
12/07/2007
Item Code: 3101686
Item Description: Demo KIT HM90 E90A-D20-3-W20-C
Item Long Description: Demo HM90 E90A-D20-3-W20-C
Type: Kit
Choose bins and quantity
Item Code | Cabinet | Drawer | Bin | Current Stock | Quantity
3101694 | Demo1 | 9 | Demo1-09-07-05 | 25.00 | 10
5605180 | Demo1 | 9 | Demo1-09-07-11 | 40.00 | 10
3101745 | Demo2 | 1 | Demo2-01-02-08 | 14.00 | 10
3101749 | Demo2 | 2 | Demo2-02-03-04 | 50.00 | 10
+5
-5
Main Menu
Back
Issue
1 2 3 4 5 6 7 8 9 0 ←

Note: MATRIX-TM will choose the components according to a method which minimizes the number of drawers to open and maximizes storage efficiency by choosing the smallest bin which supplies the needed quantity.

8. Edit the quantities, if required, and press <Issue> to proceed to the next step.
   The list of component items in the cabinet/s will be displayed for issue drawer by drawer like in the following screens. After you pick-up the items from each drawer and close the drawer, you will be prompted to pick-up items from the next drawer and so on, until all items from all drawers have been picked-up.

   Please follow the instructions marked in red above the table.

Figure 1: Open drawer for first portion of the components.

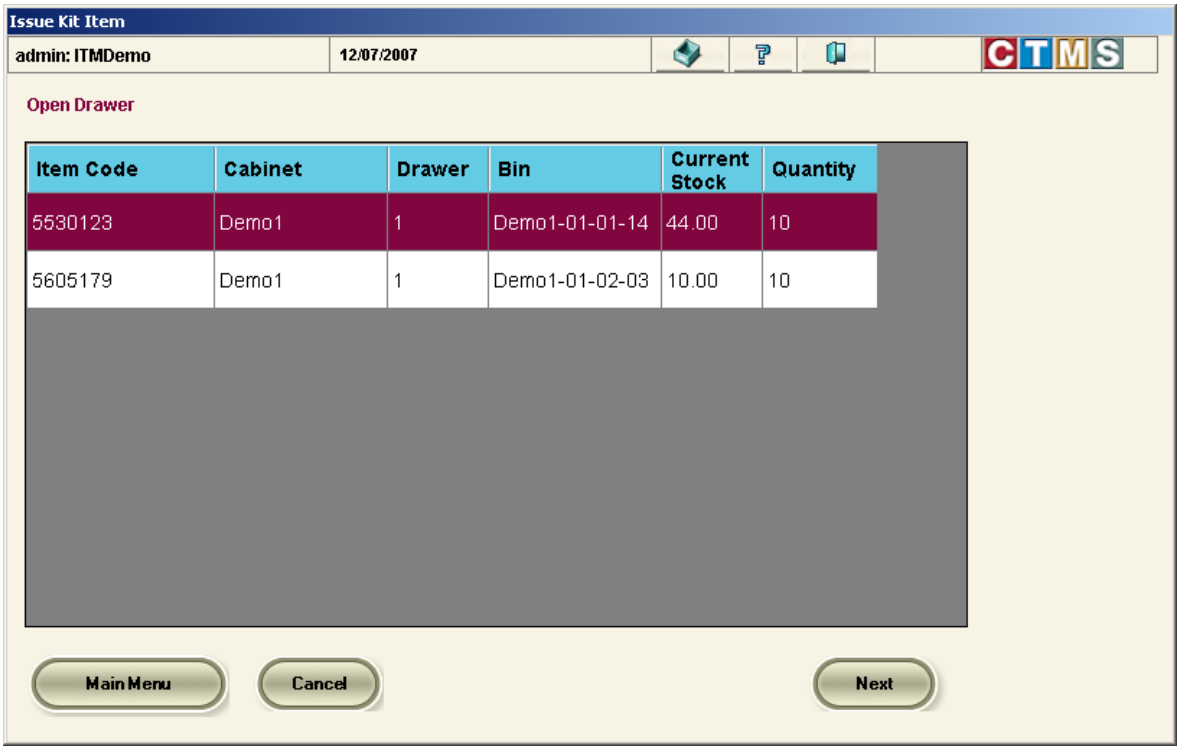


Figure 2: Take the first portion of the components and close the drawer.

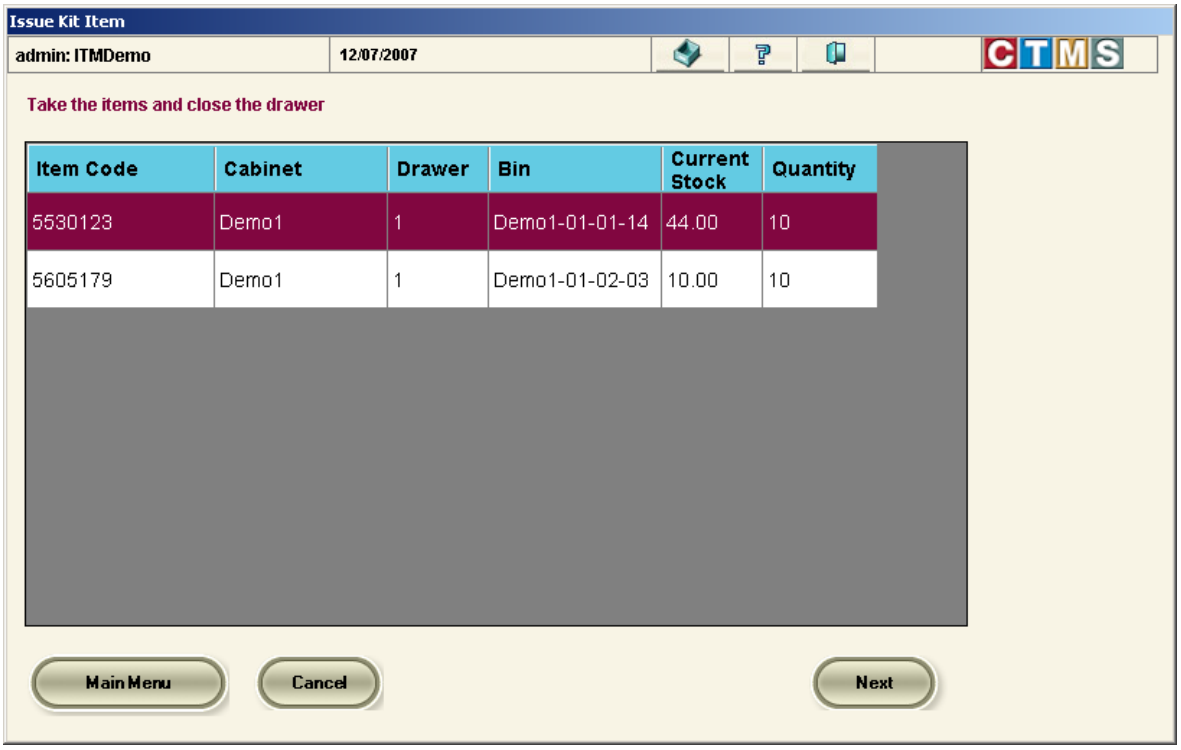


Figure 3: The next portion of the components is presented. Press <Next>.

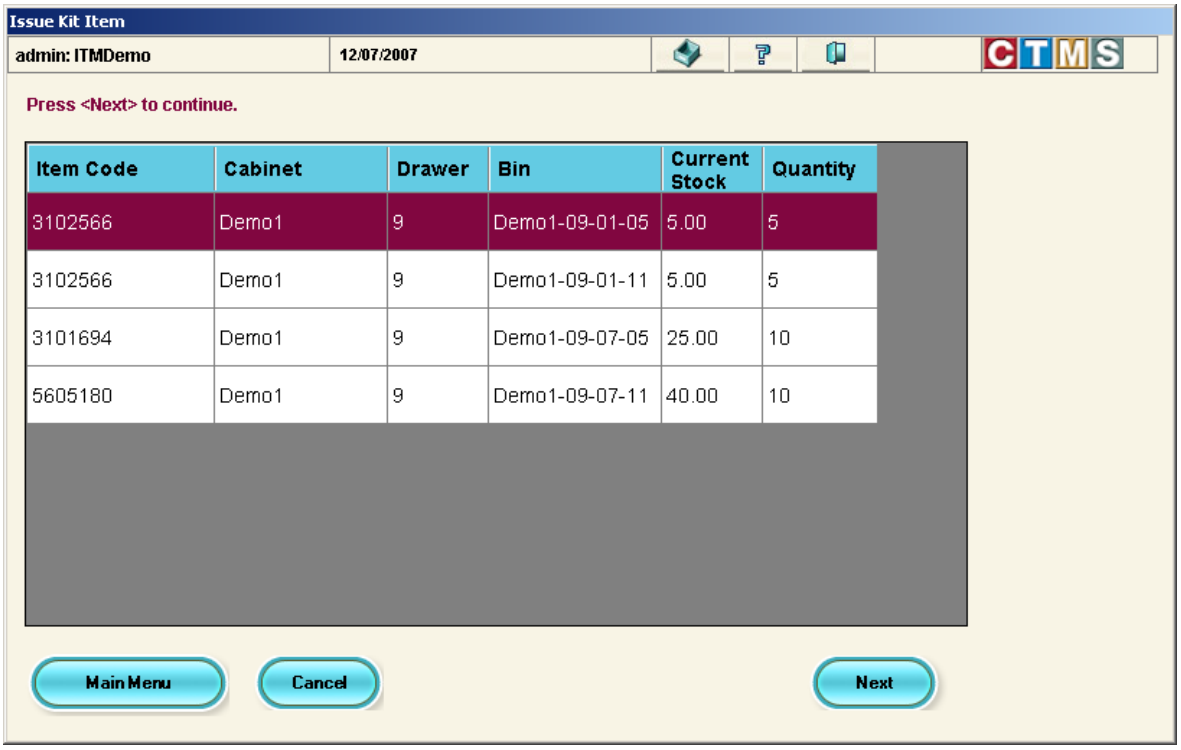


Figure 4: Take the second portion of the components and close the drawer.

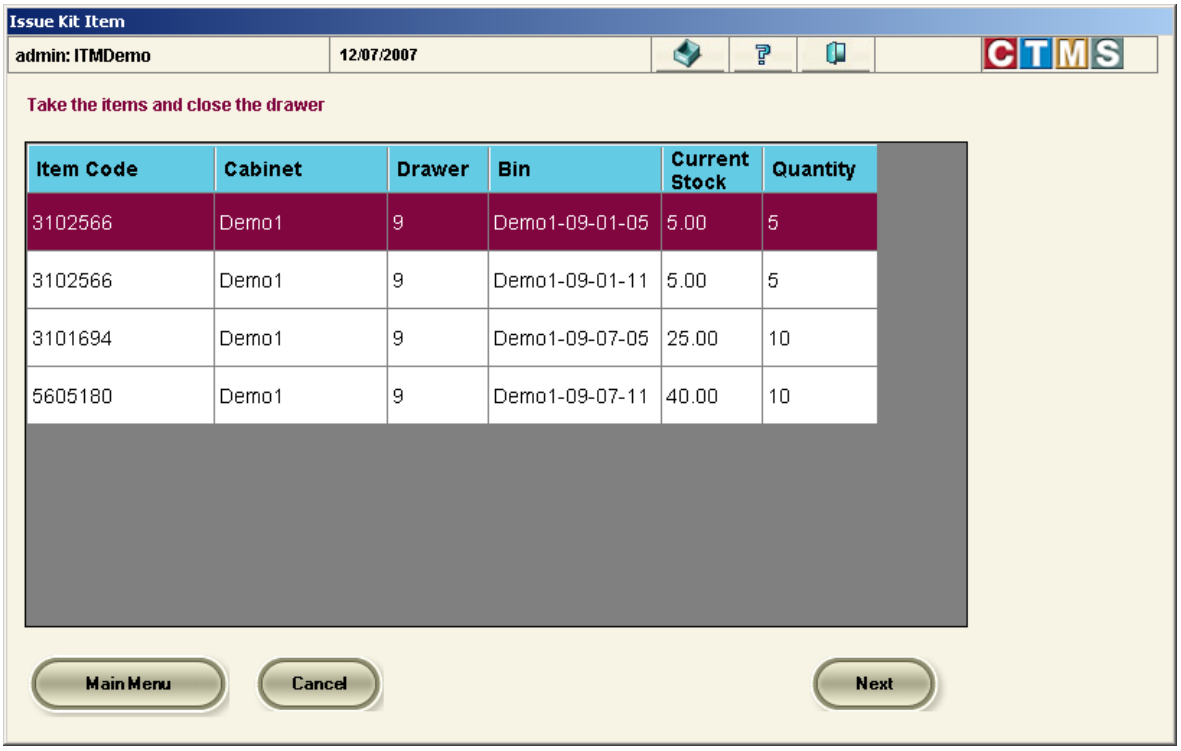
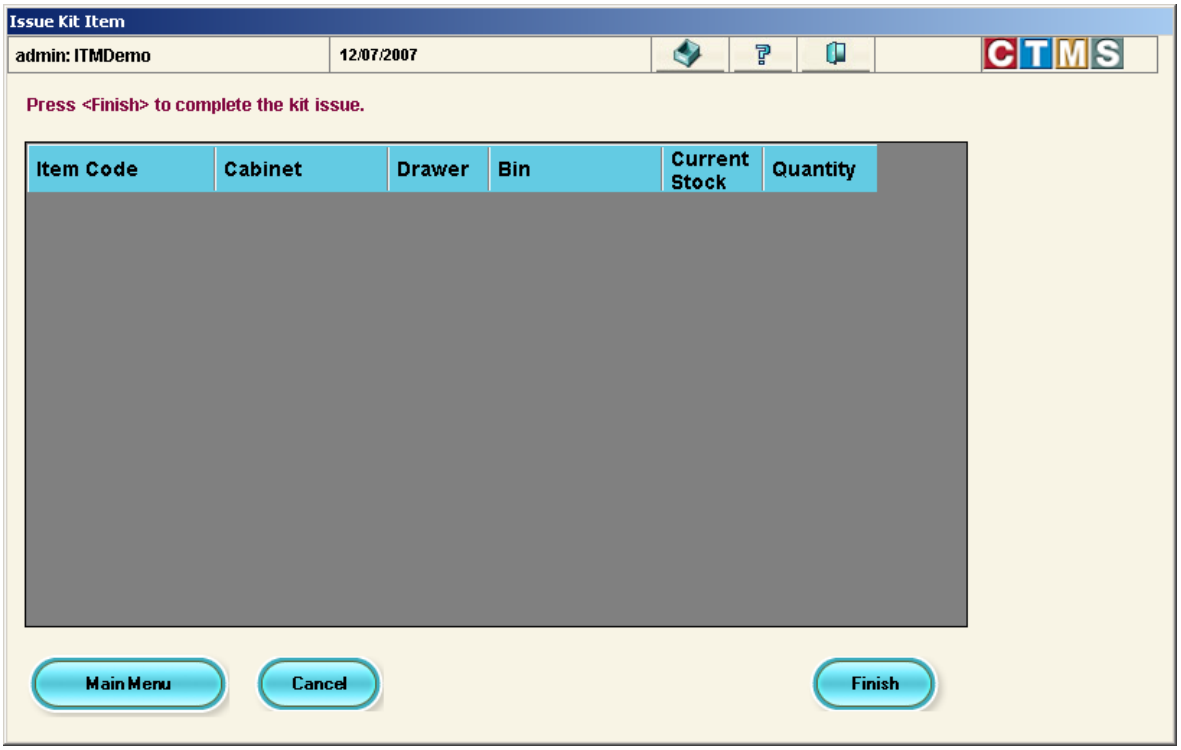


Figure 5: Press <Finish> to complete the issue of the components.



After each drawer is closed, the stock of the kits' component items is subtracted and issue transactions are written. Those transactions contain a remark noting the kit item.

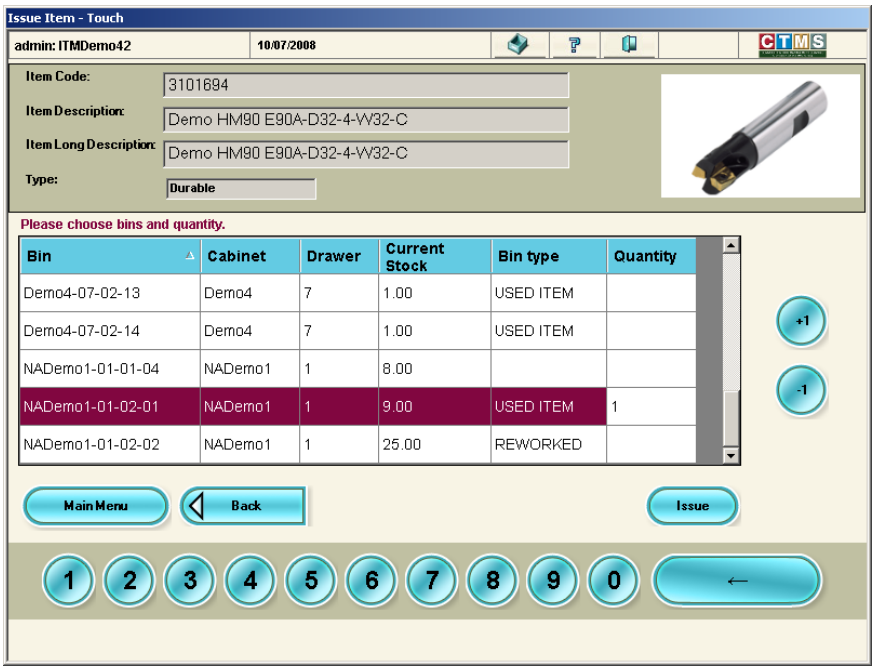
13.1.2 Issue an Item from Locker

The purpose of this process is to issue item from locker (from a bin defined in a Non-Automatic cabinet) by issuing first the key for the locker from Matrix cabinet bin.

To enable this process, please make first the item definitions in Manage module as described in Chapter B: Key Management (section 5.4.6).

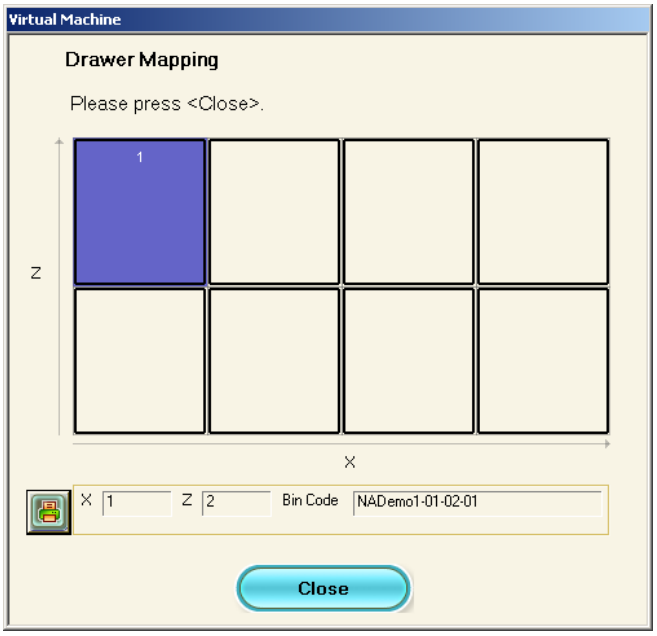
Issue a key process:

1. Press on the <Issue> icon from the Main screen and enter the relevant cost centers, as usual.
2. In the "Item Selection" screen select item which is known as stored in locker and continue to the next screen of bins.
3. Select the bin which is used as locker and connected to key, set the quantity for issue and press on the <Issue> button.

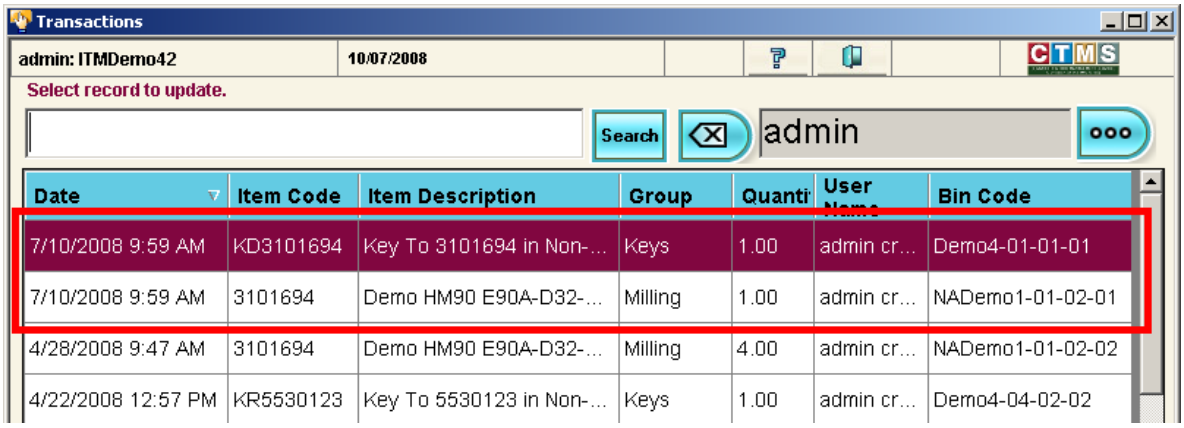


Pressing on the <Issue> button will display Drawer Mapping of **Non-Automatic cabinet** drawer with marking the relevant locker position and at the same time the Matrix drawer will be available for opening the bin with the key. You can also print the drawer mapping by pressing the <print> key.

You will be required to issue the key from Matrix bin in order to issue the item from the locker and then to return the key to the bin by <Return> option.



4. Issue the key from Matrix bin and follow the Drawer Mapping to locate the locker with item to issue. Issue the item using the key and then press on the <Close> button to complete the issue process.
5. For following the transactions created, return to Main Menu and select the <Transactions> options.



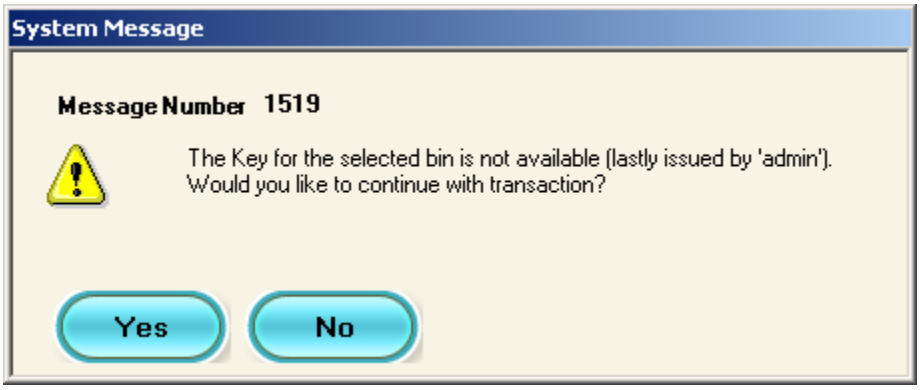
Two Issue transactions were created: one for the key and one for the item.

6. After issuing the item, return the key to the Matrix by selecting the <Return> option and selecting the key item.

Exception:

If on the step 3 after pressing the <Issue> button you get the following message, this means that the key for the locker is not available, The user who last issued this key will be displayed in the window, You will be requested to select if you want to continue the issue process without issuing key.

By pressing <Yes>, you will continue issue process to next step and this will create Issue transaction only for the item stored in locker. By pressing <No>, the issue process will be stopped.


System Message
Message Number 1519
The Key for the selected bin is not available (lastly issued by 'admin').
Would you like to continue with transaction?
Yes
No

13.1.3 Issue Items by Cost Centers

You can define list of items that will be available for Issue according to the selected cost center, All the other items to be filtered and non-accessible. This will require defining the links between cost centers and items in the Manage application.

For making the required definitions please follow the Chapter D: Define Items per Cost Center (section 19.3)

13.2 RECEIVE Item

The purpose of this process is to restock the cabinet with the items that were ordered. The system will display all open order lines filtering the order lines that were ordered for cabinets/warehouses that are not connected to the current TOUCH station.

The process supports receive of all the types of orders:

Standard Purchase Order: Order of new items supplied by supplier (vendor).

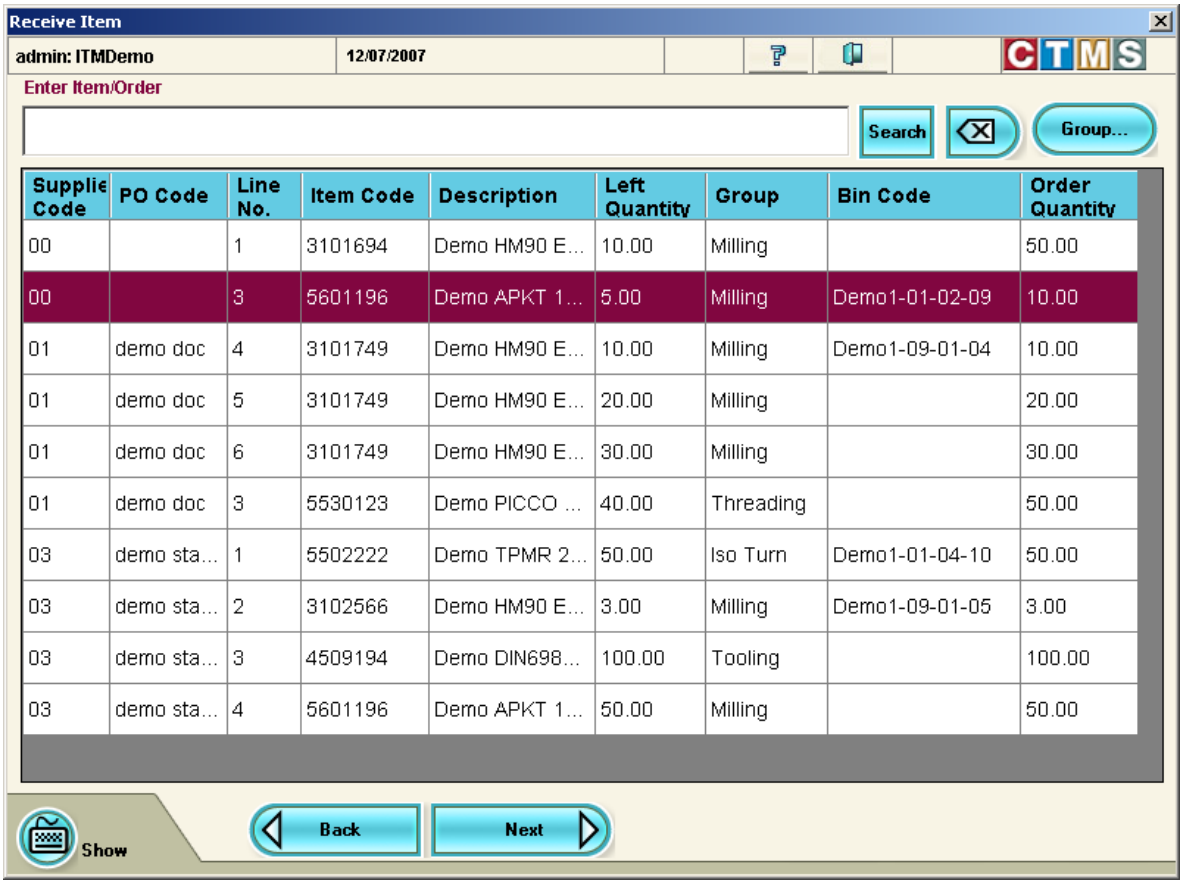
Rework Order: Order of reworked/regrind items supplied usually by regrinding supplier.

Internal Order: Internal Order of items from another system defined cabinet.

For more information, it is important to read Chapter B: RECEIVE Items (section 8.1)

Receive stock process:

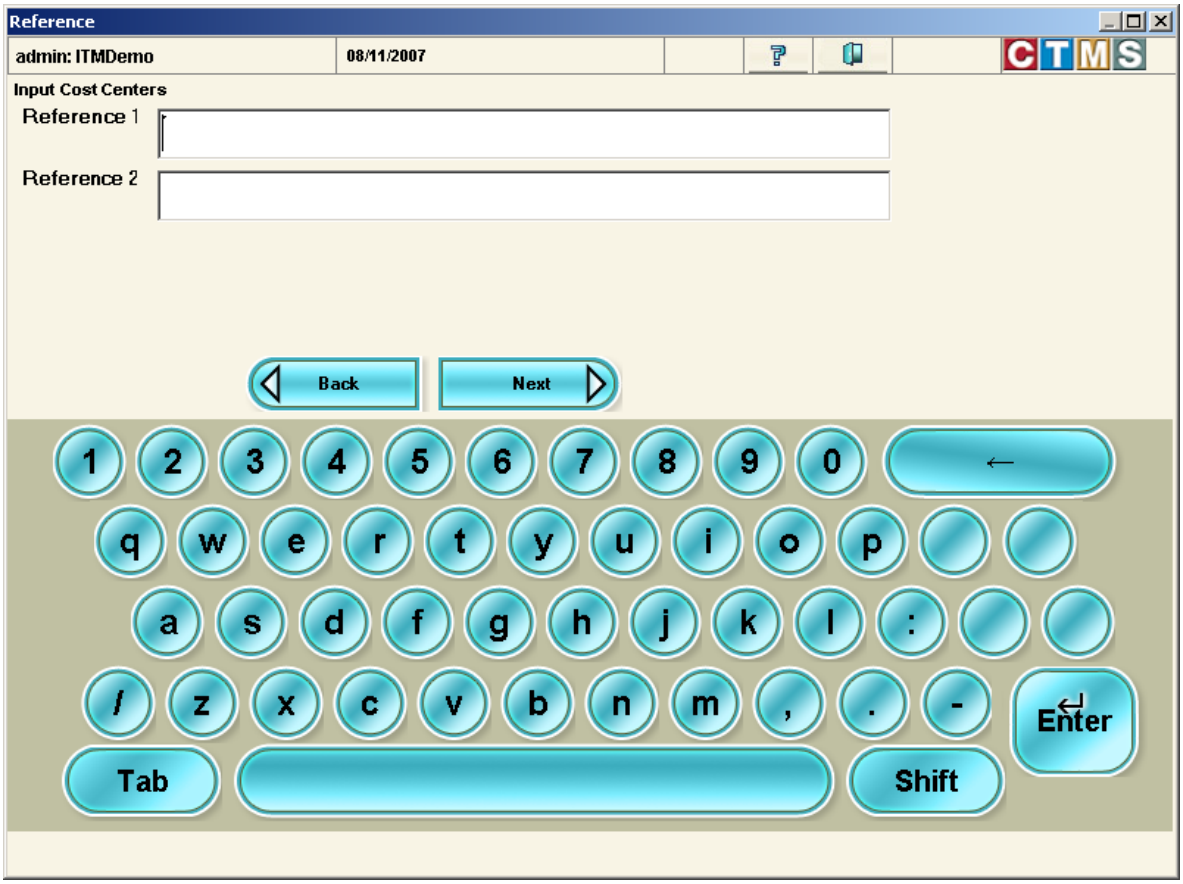
1. Press on the <Receive> icon from the Main screen.
   The search screen will be displayed, like following, listing all the order open lines.



Supplie Code	PO Code	Line No.	Item Code	Description	Left Quantity	Group	Bin Code	Order Quantity
00		1	3101694	Demo HM90 E...	10.00	Milling		50.00
00		3	5601196	Demo APKT 1...	5.00	Milling	Demo1-01-02-09	10.00
01	demo doc	4	3101749	Demo HM90 E...	10.00	Milling	Demo1-09-01-04	10.00
01	demo doc	5	3101749	Demo HM90 E...	20.00	Milling		20.00
01	demo doc	6	3101749	Demo HM90 E...	30.00	Milling		30.00
01	demo doc	3	5530123	Demo PICCO ...	40.00	Threading		50.00
03	demo sta...	1	5502222	Demo TPMR 2...	50.00	Iso Turn	Demo1-01-04-10	50.00
03	demo sta...	2	3102566	Demo HM90 E...	3.00	Milling	Demo1-09-01-05	3.00
03	demo sta...	3	4509194	Demo DIN698...	100.00	Tooling		100.00
03	demo sta...	4	5601196	Demo APKT 1...	50.00	Milling		50.00

Please notice that some order lines might be with "Bin Code" information and some lines without this information: The order lines with "Bin Code" information were ordered on the Bin level for particular bins. The order lines without "Bin Code" information were ordered on the Item level (meaning with no specific bin assignment) or Cabinet level (for particular cabinet). The order lines that were ordered for a particular bin or cabinet can be received also to different locations, as described below.

2. Select the order line you wish to receive into stock and press on the <Next> button.
   If the System Option **111** (Number of reference fields to use on Receive) is set to 1 or more, the "References" screen will appear.



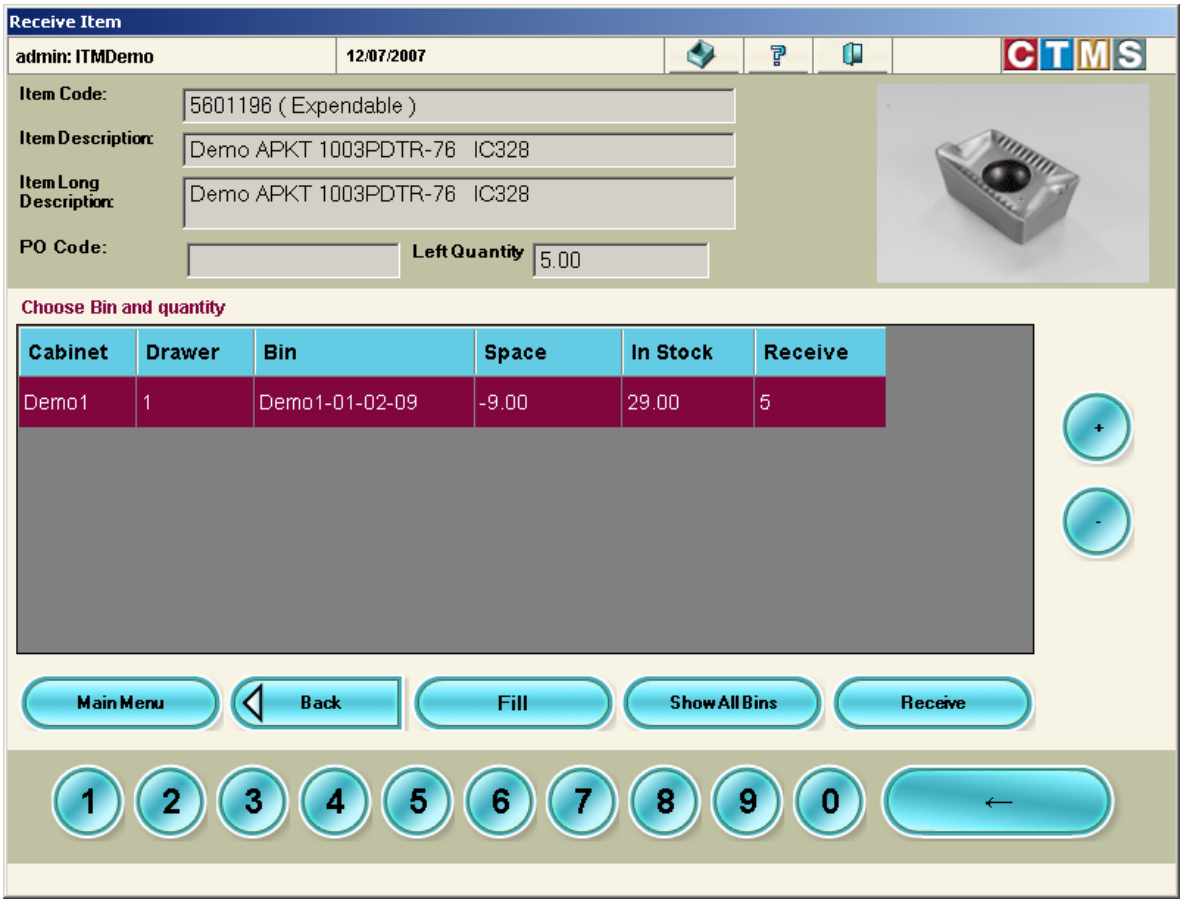
This screen supports working with interface to ERP systems.

For example: In interface to SAP, Reference 1 = PO Number, Reference 2 = Line No.

For more details, see Chapter D: Interfaces (section 24).

If the System Option **111** is set to 0 or none, the "Receive Item" screen will appear, as below.

Note: The text in red appearing above the table describes the next operation to be performed.



At the top part of the screen the Item data and the Purchase Order Code will appear.

The table displays the bin/bins which can receive the item.

Important! If the order line is not on the Bin level (not associated to a specific bin), all available bins connected to that item in the different cabinets will be listed.

If the chosen order line connected to a specific bin, only that specific bin will be displayed. In this case, to see all the available bins use the <Show All Bins> button.

The default receive quantity will be the order line quantity and the bin free space (current stock less bin capacity). You can choose to receive the item to a number of bins provided that they are in the same drawer.

Allocation principle:

The default quantity will be allocated to bins in the following way:

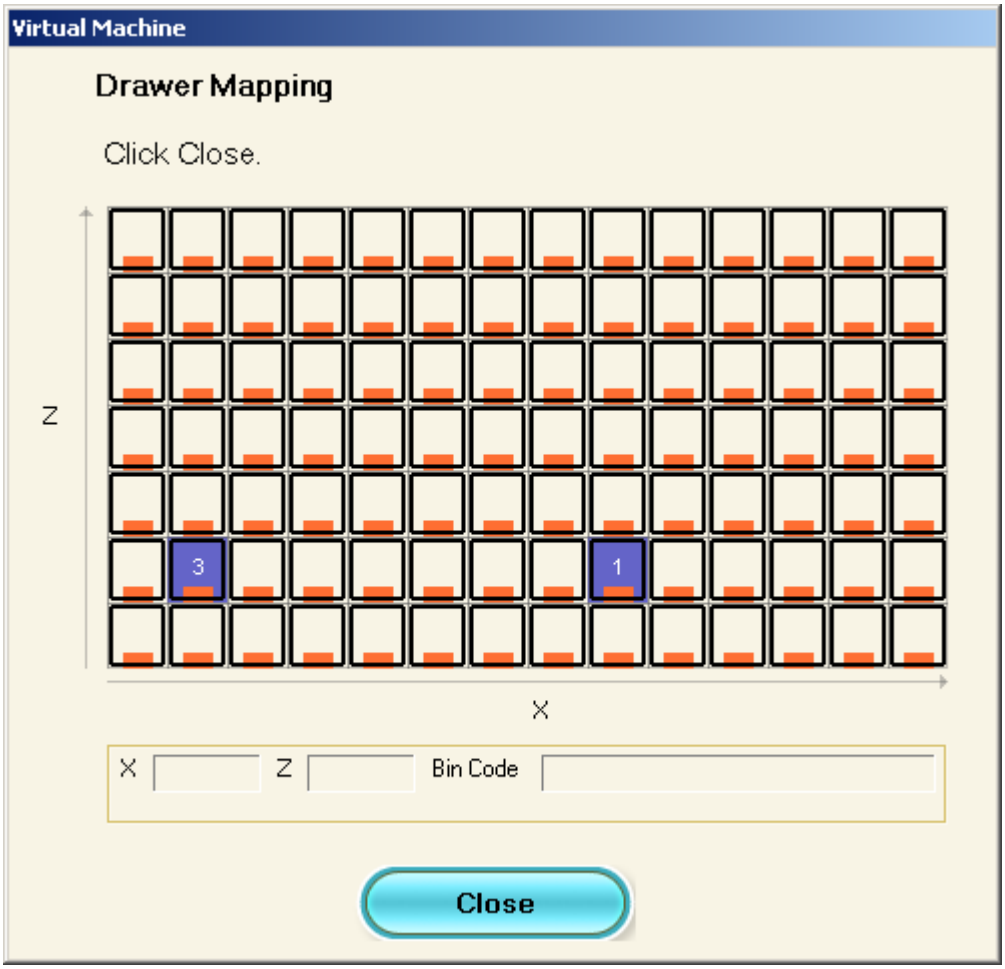
- If the first bin has the "Allow Over Capacity" flag turned on, then the entire order quantity will be loaded into this bin.
- If the capacity of the bin is limited (does not allow over capacity), then the system will exploit the available space (quantity) in this bin for loading. If some items still remain unallocated, the system will check the next bins in the table in the same manner until the entire quantity of the order line is loaded.

3. If you selected an order line that was ordered on the Bin or Cabinet levels (like described in the previous step) and you wish to receive the order to a bin different from the bin/cabinet of the order line, press on the 

<Show All Bins> button.
This button will be disabled, if you selected order line on the Item line.
As a result, it will display all the bins in the current TOUCH station that hold this item and that have enough space to receive them (also bins that their space is zero, but marked with 'Allow Over Capacity' sign). The <Show All Bins> button will then be disabled. See the following screen.

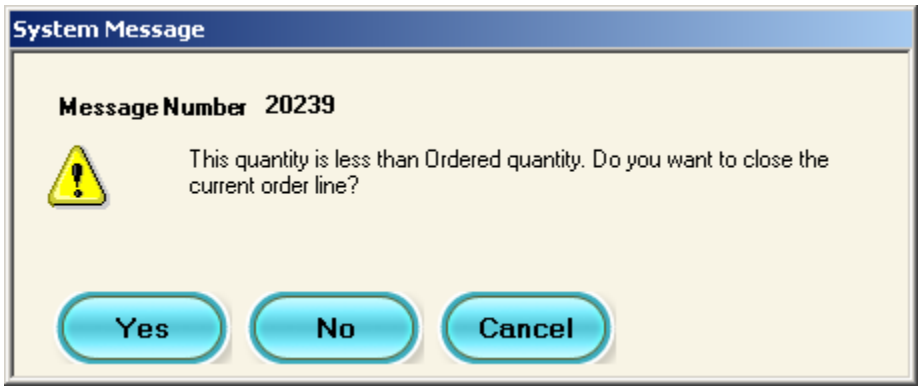


4. Edit the quantities to receive in the "Receive" field by using the Add/Reduce buttons or through the virtual keyboard and press on the <Receive> button.



5. Open the drawer and put the items to receive into the allocated bin/s.
6. Close the drawer.
   Stock will be updated.

Note: In case you update a smaller quantity than in the order line, the system will display the following screen:


System Message
Message Number 20239
This quantity is less than Ordered quantity. Do you want to close the current order line?
Yes
No
Cancel

If the <Yes> button is pressed, then the order line will be closed even though not all the quantity was received. If the <No> button is pressed, then the order line will stay open with the balance which remains to be received.

13.3 RETURN Item

This option allows the user to return items previously issued from the cabinet.

Enter this screen by clicking the <Return> icon on the first screen.

There are 3 cases where an item can be returned:

1. Item type is defined as "Durable" and the bin type is defined "Used".
2. Item type is defined as "Kit" and the bin type is defined "Used".
3. Item type is defined as "Reworkable" and the bin type is defined "Used" and "Do not Issue".

Return item

Press on the <Return> icon from the Main screen.

1. Search and choose the item you request to return.
2. The "Return Tools" screen will then appear:

Note: The text in red above the table describes the next operation to be performed.



3. Input the quantity to be returned in the "Return" field. Items may be returned to multiple bins at the same time if they are located in the same drawer.
   The quantities can be updated by using the virtual keyboard or Add/Reduce buttons.
4. Press on the <Return> button.
5. Open the lit up drawer and return the item/s to the bin/s.
6. Close the drawer.
7. The quantities will be updated when the drawer closes.

Note: You can return a quantity of items that exceeds the bin capacity if the bin is defined as "Allow Over Capacity", otherwise you can return only up to the bin capacity limit.

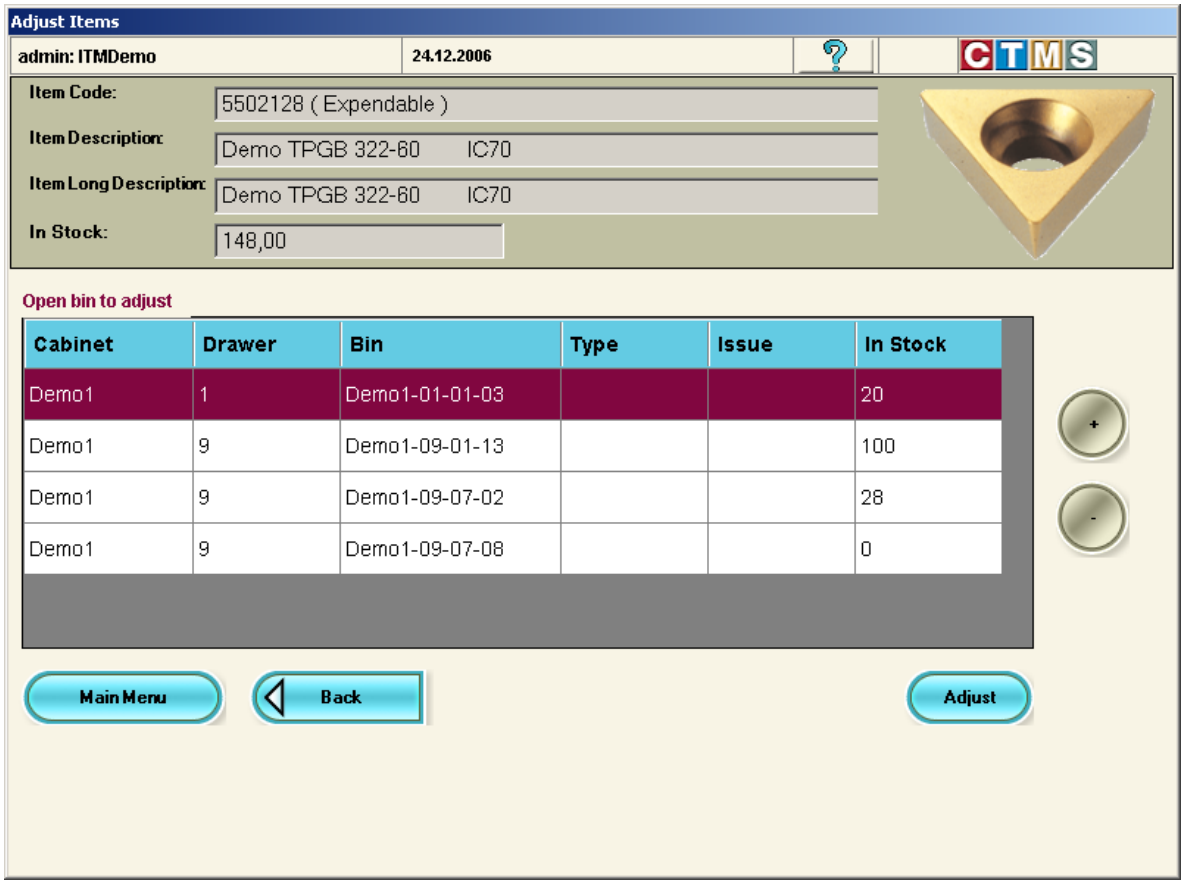
13.4 ADJUST ITEM

Stock adjustment is used where items in bins are incorrectly recorded in the system, and therefore need to be adjusted. Access to this option is normally restricted to the stock control manager.

Stock adjustment process

1. Press on the <Adjust Item> icon from the Main screen.
2. Search and choose the item you wish to adjust.
3. Press on the <Next> button.
4. The "Adjust Items" screen will appear:

Note: The text in red above the table describes the next operation to be performed.



5. Select the bin you wish to adjust.

Note: You can choose only one bin at a time to be adjusted.

6. Press on the <Adjust> button.
7. Open the drawer which is lit up.
8. Check the quantity in the bin.
9. Adjust the stock quantity in the bin, in the field "In Stock", by using either the Add/Reduce buttons or virtual keyboard.
10. Close the drawer.

    The stock will be adjusted with the selected changes. A stock adjustment transaction will be created.

13.5 COUNT BINS

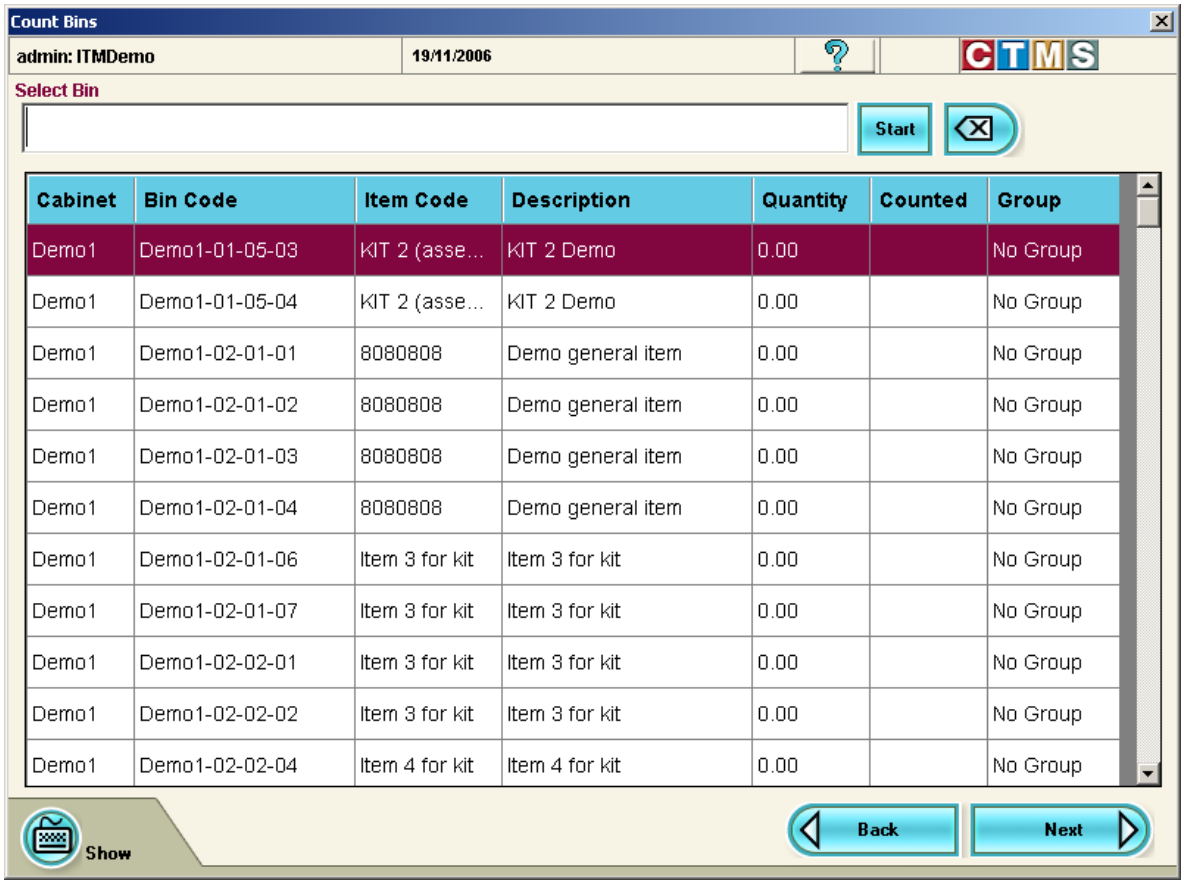
The purpose of this process is to count the stock in the bins.

In order to be able to cycle count the bins, the system will display the locations by the last counting date. This will help us count first those bins which have the oldest "Last Counting Date".

Stock counting process

1. Press on the <Count Bins> icon from the Main screen.
2. Search and choose the Bin you wish to count.
3. Question displayed: Do you want to count all bins in the drawer?
   If you press <Yes> all the bins in that specific drawer will be selected for counting.
4. The next screen will appear:

Note: The text in red above the table describes the next operation to be performed.



Cabinet	Bin Code	Item Code	Description	Quantity	Counted	Group
Demo1	Demo1-01-05-03	KIT 2 (asse...	KIT 2 Demo	0.00		No Group
Demo1	Demo1-01-05-04	KIT 2 (asse...	KIT 2 Demo	0.00		No Group
Demo1	Demo1-02-01-01	8080808	Demo general item	0.00		No Group
Demo1	Demo1-02-01-02	8080808	Demo general item	0.00		No Group
Demo1	Demo1-02-01-03	8080808	Demo general item	0.00		No Group
Demo1	Demo1-02-01-04	8080808	Demo general item	0.00		No Group
Demo1	Demo1-02-01-06	Item 3 for kit	Item 3 for kit	0.00		No Group
Demo1	Demo1-02-01-07	Item 3 for kit	Item 3 for kit	0.00		No Group
Demo1	Demo1-02-02-01	Item 3 for kit	Item 3 for kit	0.00		No Group
Demo1	Demo1-02-02-02	Item 3 for kit	Item 3 for kit	0.00		No Group
Demo1	Demo1-02-02-04	Item 4 for kit	Item 4 for kit	0.00		No Group

5. Press on the <Open> button.
6. Open the drawer which is lit up. All bins chosen for counting will open.
7. For every bin in the screen where there are discrepancies, you must update the stock quantities in the "Quantity" field. This can be done by using the virtual keyboard.

Note: You can also close the drawer and then update the counted quantities in the system.

Note: If all quantities in the bin match the counted quantities, you can mark the Counted field for all displayed bins by pressing on the 

<Mark All> button.

Note: Where the quantity is updated, the "Counted" field will be automatically marked. If there were no differences between the counted quantity and the "Quantity" field, the "Counted" field check box must be marked manually. This will update the last counted date for that bin.

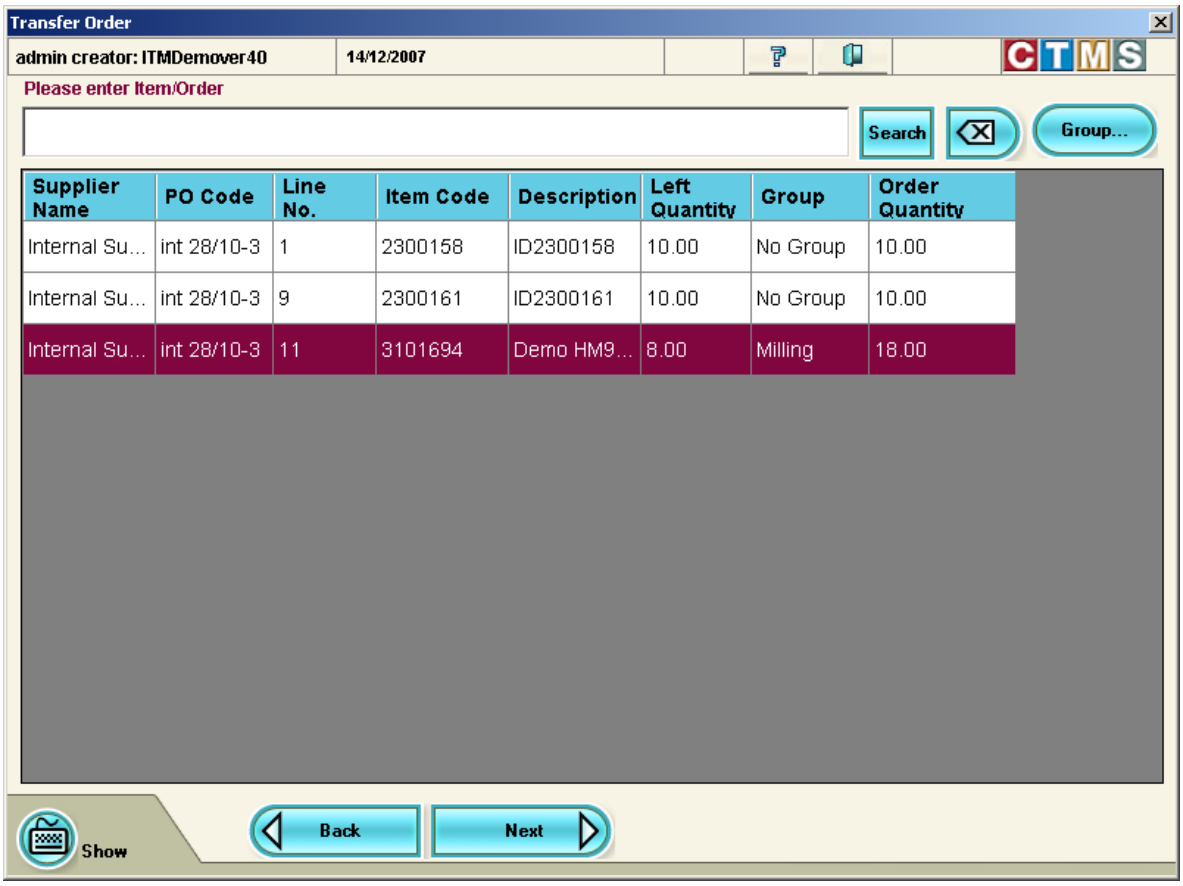
8. Close the drawer.
9. Press on the <Update> button.
10. All stock quantities will be updated and for every bin that was marked as counted, the last counting date will be updated. A stock count transaction on the difference will be also created.

13.6 TRANSFER ORDER

This module enables transferring items from one cabinet to another (the ordering / receiving cabinet) against an Internal Order. An Internal Order contains order lines that detail the ordering cabinet / bin, the ordered item and quantity that needs to be transferred. For more information regarding internal orders see Chapter B: Orders (Purchase, Rework and Internal) (section 7).

1. Press on the <Transfer Order> icon from the Main screen.

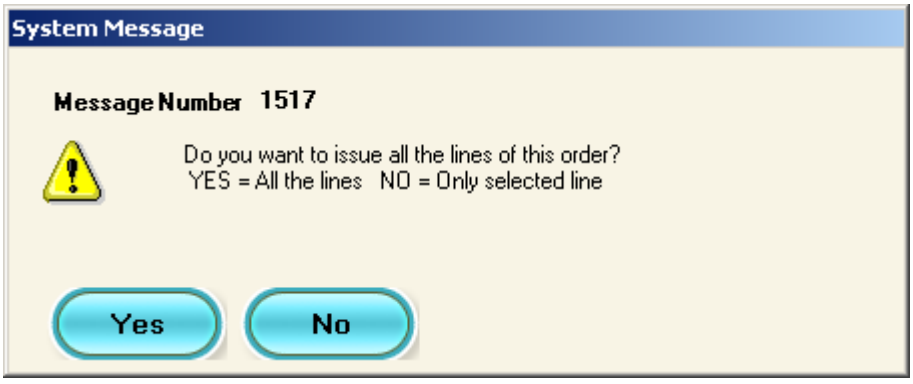
   The following screen will be displayed:



   This screen displays all the Internal Order lines with the status 'Open' and 'On Route'.

2. Search and select the order line for transfer.

   If there is more that one order line in the list, the following message will displayed:

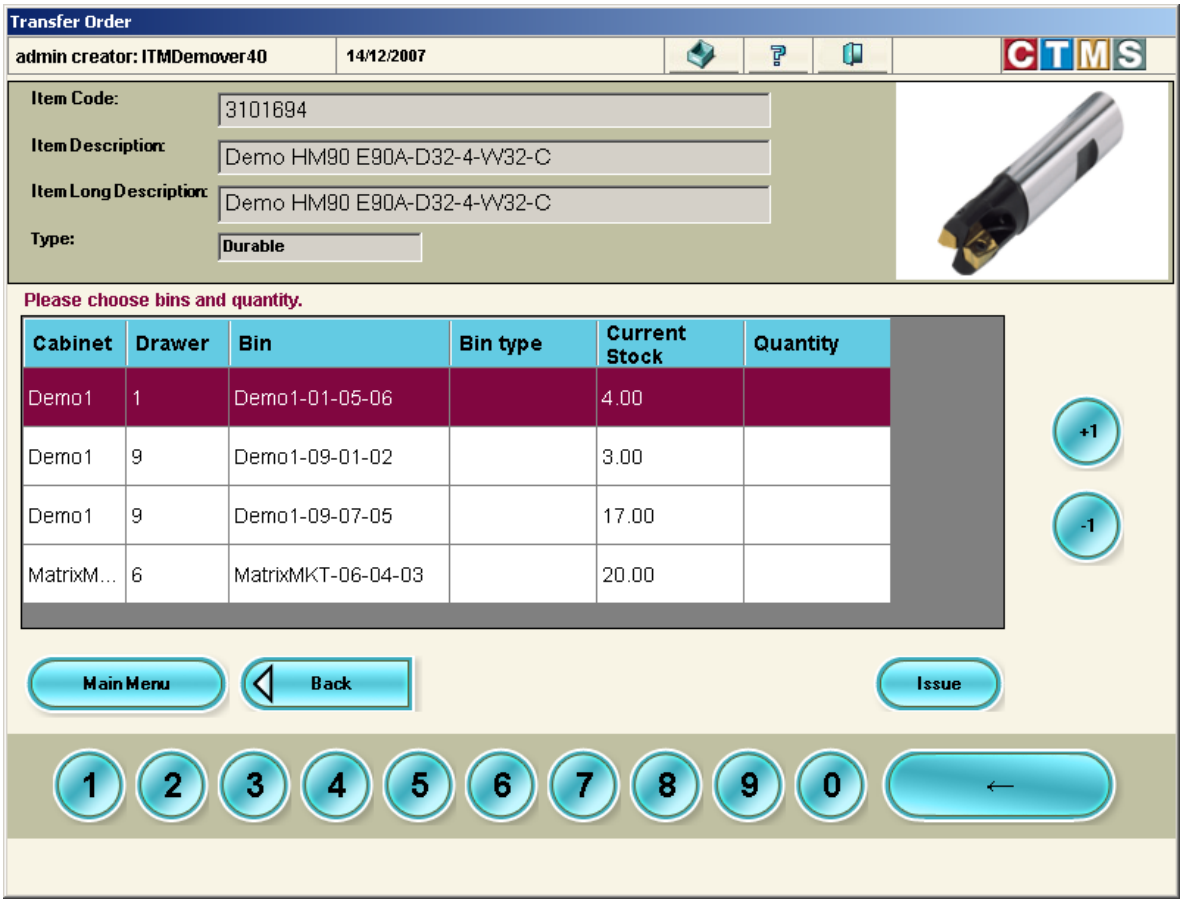

System Message
Message Number 1517
Do you want to issue all the lines of this order?
YES = All the lines NO = Only selected line
Yes
No

3. Press on <Yes> button to transfer all the order lines or press on <No> button to transfer only the selected order line.

   * By pressing on <Yes>, the next screen will display the items from all the lines of the selected order (as in the following screen) and will allow transferring them together.



   * By pressing on <No>, the next screen will display the item from the selected order line and its bin locations (as in the following screen).



4. Set the quantities for transfer and press on the <Issue> button.
5. Follow the instructions displayed in red above the grid to complete the transfer of items.

Note: The text in red above the table describes the next operation to be performed.

6. In order to complete the transfer of items, continue to "Receive" process at the cabinet which created the Internal Order.

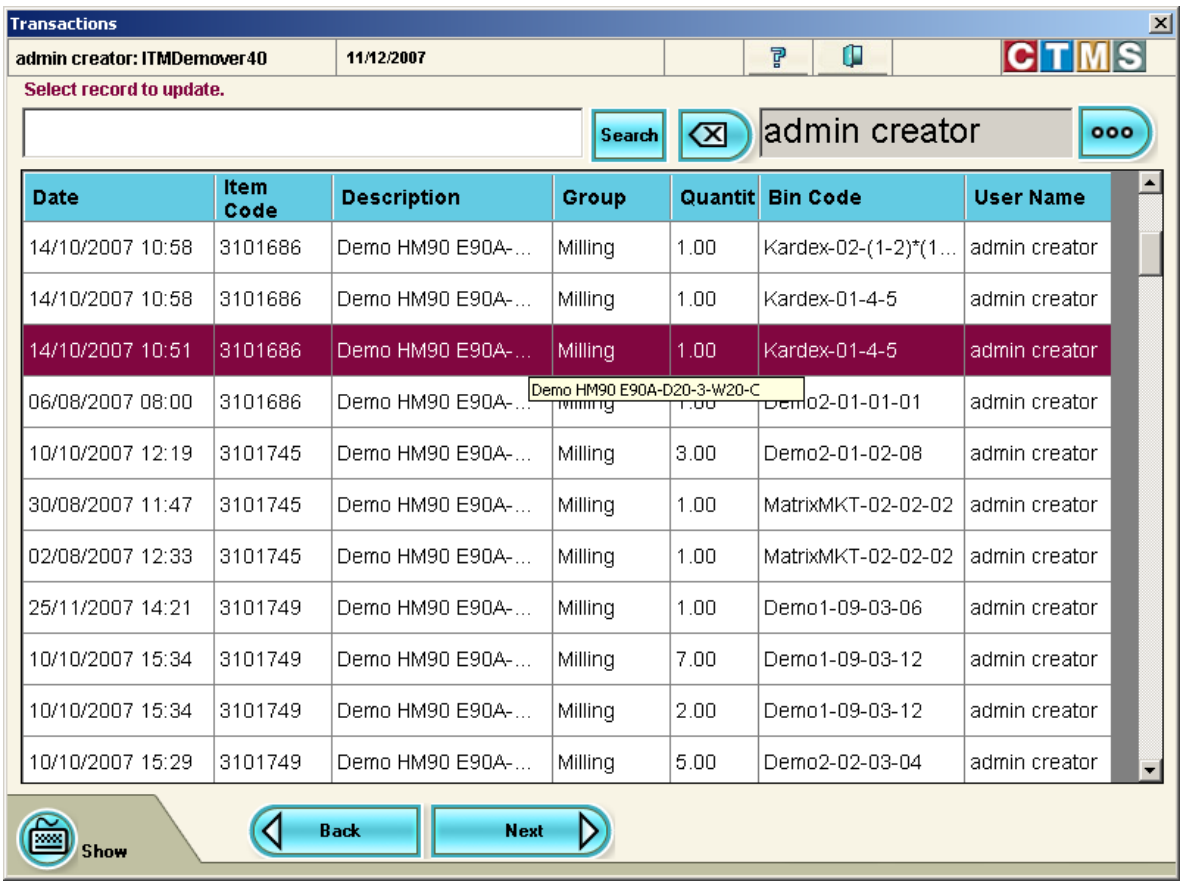
13.7 TRANSACTIONS

This module can be accessed by authorized users only. It displays all the **Issue** transactions, enables filtering the list by the user who issued each item, and allows the user to return any issued item (the whole quantity or partial quantity) to the stock.

To correct Issue transactions:

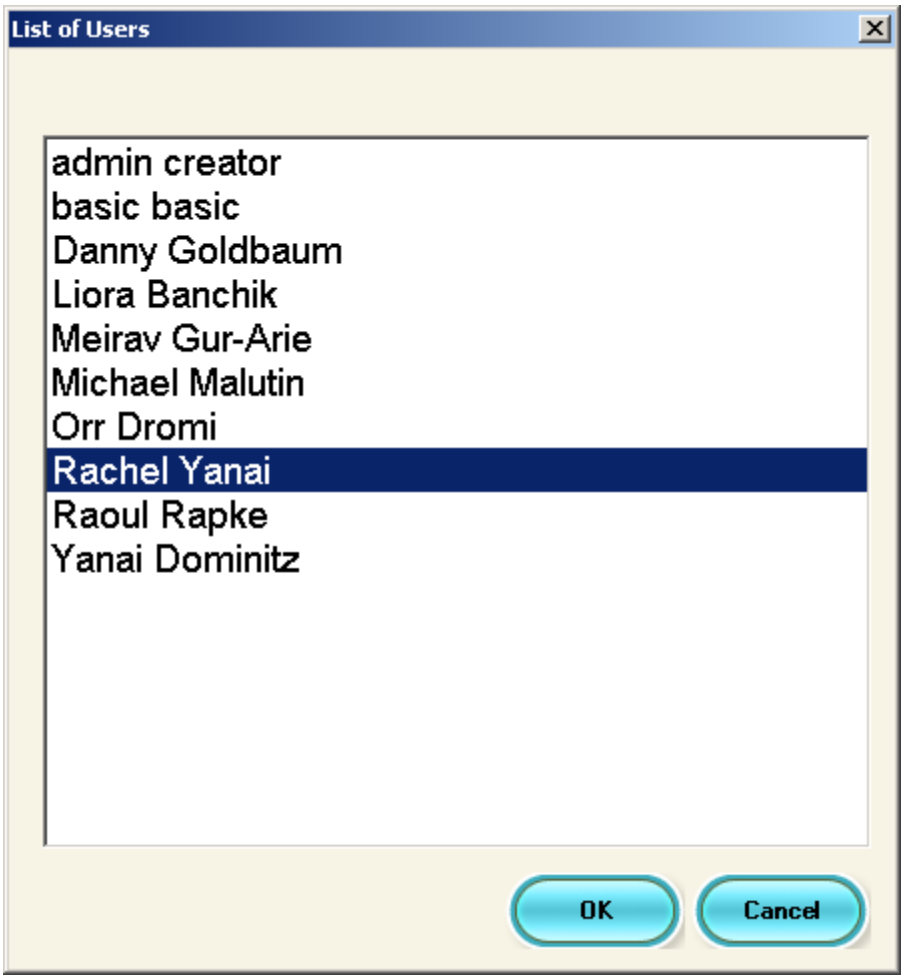
1. Press on the <Transactions> icon.

   The following screen will be displayed:


Transactions
admin creator: ITMDemover40
11/12/2007
Select record to update.
Search
admin creator
Date
Item Code
Description
Group
Quantit
Bin Code
User Name
14/10/2007 10:58 3101686 Demo HM90 E90A-... Milling 1.00 Kardex-02-(1-2)*(1... admin creator
14/10/2007 10:58 3101686 Demo HM90 E90A-... Milling 1.00 Kardex-01-4-5 admin creator
14/10/2007 10:51 3101686 Demo HM90 E90A-... Milling 1.00 Kardex-01-4-5 admin creator
Demo HM90 E90A-D20-3-W20-C
06/08/2007 08:00 3101686 Demo HM90 E90A-... Demo2-01-01-01 admin creator
10/10/2007 12:19 3101745 Demo HM90 E90A-... Milling 3.00 Demo2-01-02-08 admin creator
30/08/2007 11:47 3101745 Demo HM90 E90A-... Milling 1.00 MatrixMKT-02-02-02 admin creator
02/08/2007 12:33 3101745 Demo HM90 E90A-... Milling 1.00 MatrixMKT-02-02-02 admin creator
25/11/2007 14:21 3101749 Demo HM90 E90A-... Milling 1.00 Demo1-09-03-06 admin creator
10/10/2007 15:34 3101749 Demo HM90 E90A-... Milling 7.00 Demo1-09-03-12 admin creator
10/10/2007 15:34 3101749 Demo HM90 E90A-... Milling 2.00 Demo1-09-03-12 admin creator
10/10/2007 15:29 3101749 Demo HM90 E90A-... Milling 5.00 Demo2-02-03-04 admin creator
Show
Back
Next

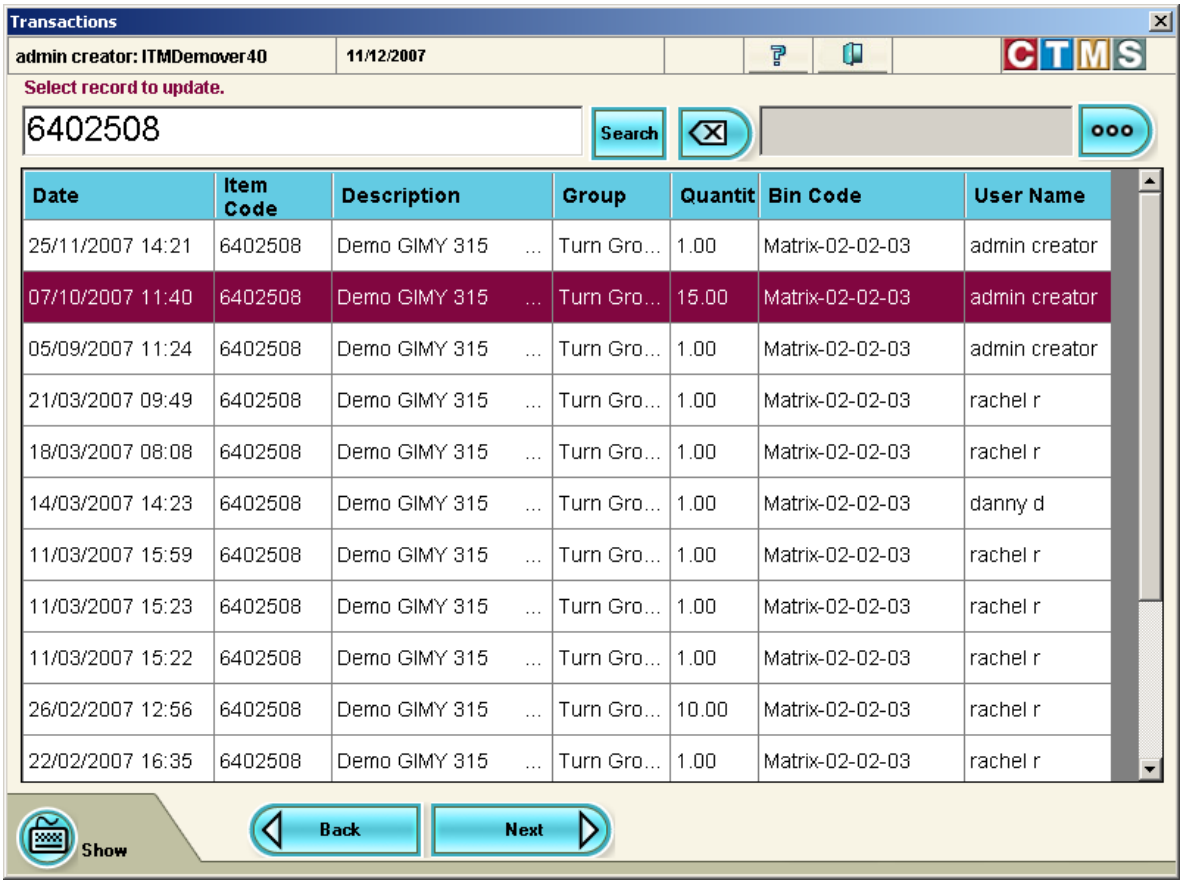
   This screen displays all the Issue transactions. By default it displays transactions for the currently logged in user.

2. To display all the transactions or transactions of other users press on the  <…> button. A screen with all users will be displayed:

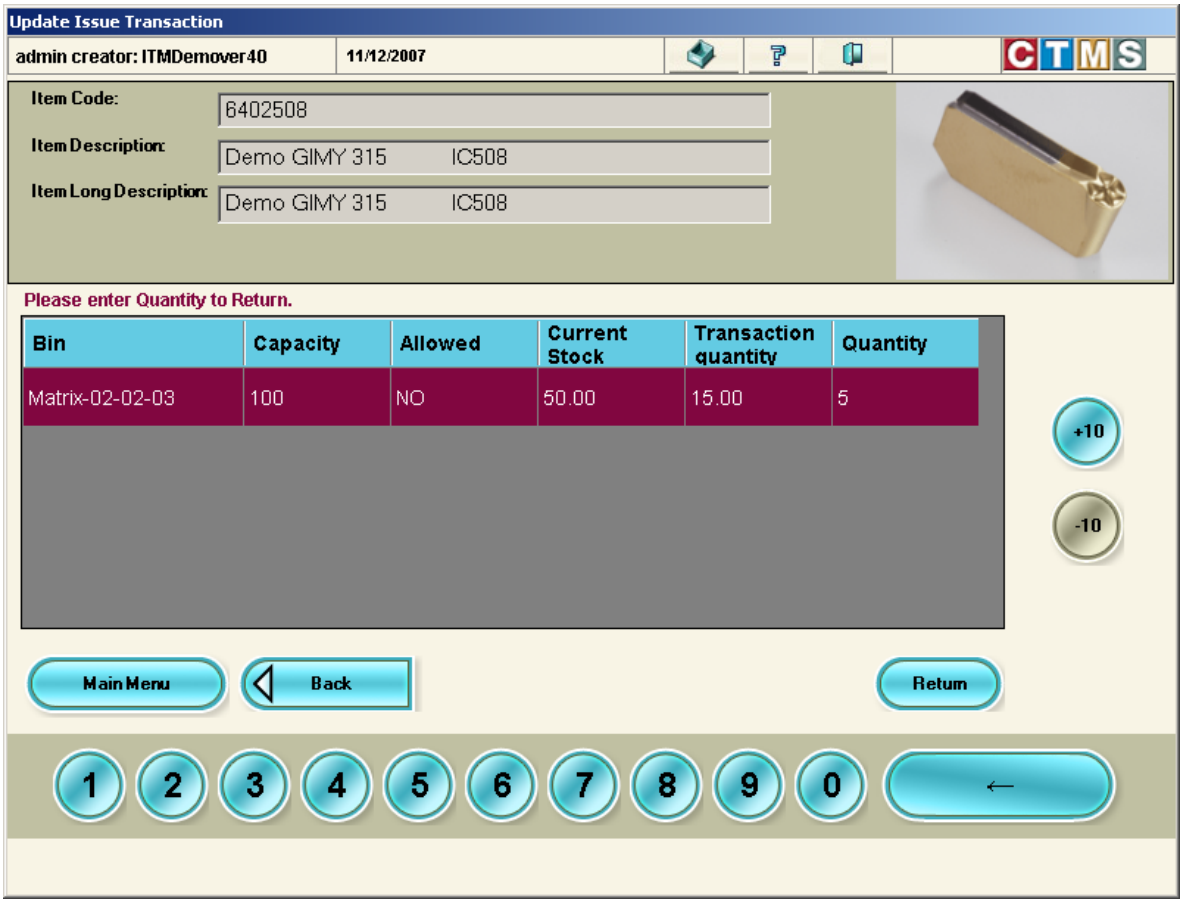


Select a user (to filter the transactions created by this user) or press on <Cancel> button to see all the transactions.

3. Search for a transaction by item code / description.


Transactions
admin creator: ITMDemover40
11/12/2007
Select record to update.
6402508
Search
Date
Item Code
Description
Group
Quantit
Bin Code
User Name
25/11/2007 14:21 6402508 Demo GIMY 315 ... Turn Gro... 1.00 Matrix-02-02-03 admin creator
07/10/2007 11:40 6402508 Demo GIMY 315 ... Turn Gro... 15.00 Matrix-02-02-03 admin creator
05/09/2007 11:24 6402508 Demo GIMY 315 ... Turn Gro... 1.00 Matrix-02-02-03 admin creator
21/03/2007 09:49 6402508 Demo GIMY 315 ... Turn Gro... 1.00 Matrix-02-02-03 rachel r
18/03/2007 08:08 6402508 Demo GIMY 315 ... Turn Gro... 1.00 Matrix-02-02-03 rachel r
14/03/2007 14:23 6402508 Demo GIMY 315 ... Turn Gro... 1.00 Matrix-02-02-03 danny d
11/03/2007 15:59 6402508 Demo GIMY 315 ... Turn Gro... 1.00 Matrix-02-02-03 rachel r
11/03/2007 15:23 6402508 Demo GIMY 315 ... Turn Gro... 1.00 Matrix-02-02-03 rachel r
11/03/2007 15:22 6402508 Demo GIMY 315 ... Turn Gro... 1.00 Matrix-02-02-03 rachel r
26/02/2007 12:56 6402508 Demo GIMY 315 ... Turn Gro... 10.00 Matrix-02-02-03 rachel r
22/02/2007 16:35 6402508 Demo GIMY 315 ... Turn Gro... 1.00 Matrix-02-02-03 rachel r
Show
Back
Next

4. Select transaction to correct. The following screen will be displayed:



5. Set the quantity for return, **which should not exceed the issued quantity** or **bin capacity**.
   Press on the <Return> button.
6. Open the bin following the instructions written at the top of the screen (in RED) and return the items.
7. Close the drawer.
   At this point a **reversal 'Issue'** transaction (with negative Transaction quantity) will be created with the date/time and user of the original transaction.
   Check this transaction in the MANAGE Module: Operations → Transaction.

13.8 RECEIVE without ORDER

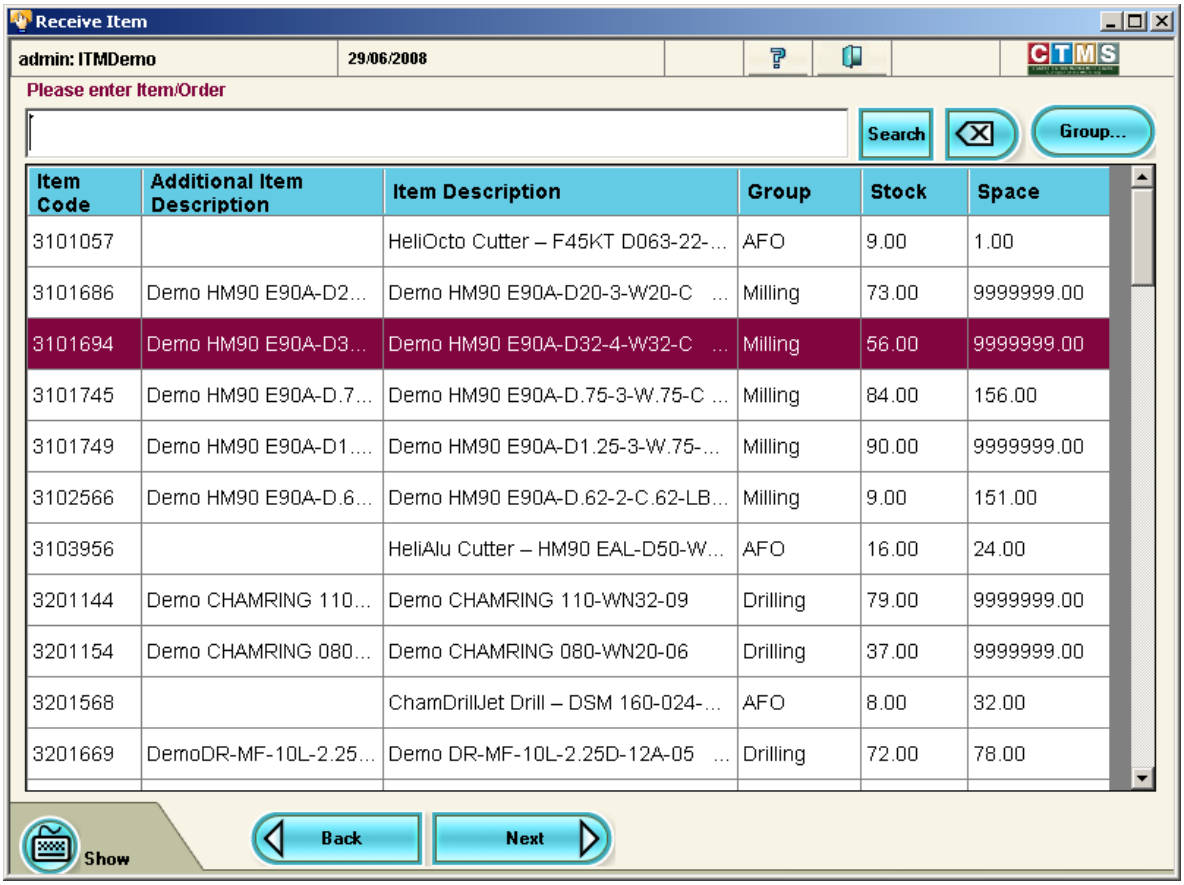
This module displays all the items that can be stored in the current Touch station and enables to receive an item without having a purchase order. This option is needed in the following cases:

- When the purchase orders are created in ERP system without creating them in Matrix system and the items are ready to be received to the stock.
- When there is a receipt and items from unknown source that need to be registered as a part of received stock.

To use this functionality in Manage application, please refer to Chapter B: Receive with ERP Order (section 8.1.3).

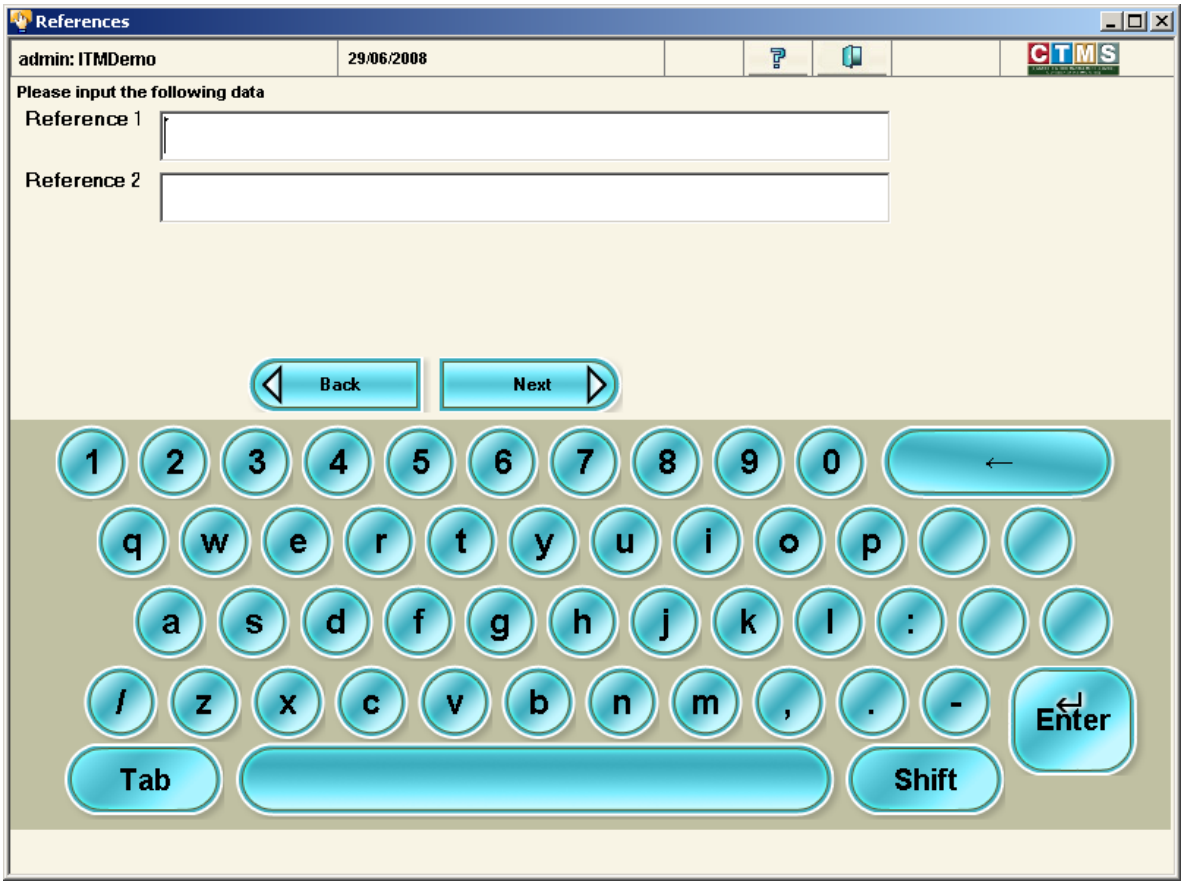
To Receive Item without an Order:

1. Press on the <Receive without Order> icon.
   The following screen will be displayed:


Receive Item
admin: ITMDemo
29/06/2008
Please enter Item/Order
Search
Group...
Item Code
Additional Item Description
Item Description
Group
Stock
Space
3101057 HeliOcto Cutter – F45KT D063-22-... AFO 9.00 1.00
3101686 Demo HM90 E90A-D2... Demo HM90 E90A-D20-3-W20-C ... Milling 73.00 9999999.00
3101694 Demo HM90 E90A-D3... Demo HM90 E90A-D32-4-W32-C ... Milling 56.00 9999999.00
3101745 Demo HM90 E90A-D.7... Demo HM90 E90A-D.75-3-W.75-C ... Milling 84.00 156.00
3101749 Demo HM90 E90A-D1.... Demo HM90 E90A-D1.25-3-W.75-... Milling 90.00 9999999.00
3102566 Demo HM90 E90A-D.6... Demo HM90 E90A-D.62-2-C.62-LB... Milling 9.00 151.00
3103956 HeliAlu Cutter – HM90 EAL-D50-W... AFO 16.00 24.00
3201144 Demo CHAMRING 110... Demo CHAMRING 110-WN32-09 Drilling 79.00 9999999.00
3201154 Demo CHAMRING 080... Demo CHAMRING 080-WN20-06 Drilling 37.00 9999999.00
3201568 ChamDrillJet Drill – DSM 160-024-... AFO 8.00 32.00
3201669 DemoDR-MF-10L-2.25... Demo DR-MF-10L-2.25D-12A-05 ... Drilling 72.00 78.00
Show
Back
Next

This screen displays all the items of the current Touch station that also have free space to be stored in. The **'Space'** column represents the maximal number of items that can be received. When the space = 9,999,999.00, it means that some of the bins with that item was marked with 'Allow Over Capacity' and therefore there is no limit on the number of items that can be received.

2. Select the item you wish to receive into stock and press on the <Next> button.
   If the System Option **111** (Number of reference fields to use on Receive) is set to 1 or more, the "References" screen will appear.



This screen supports working with interface to ERP systems.

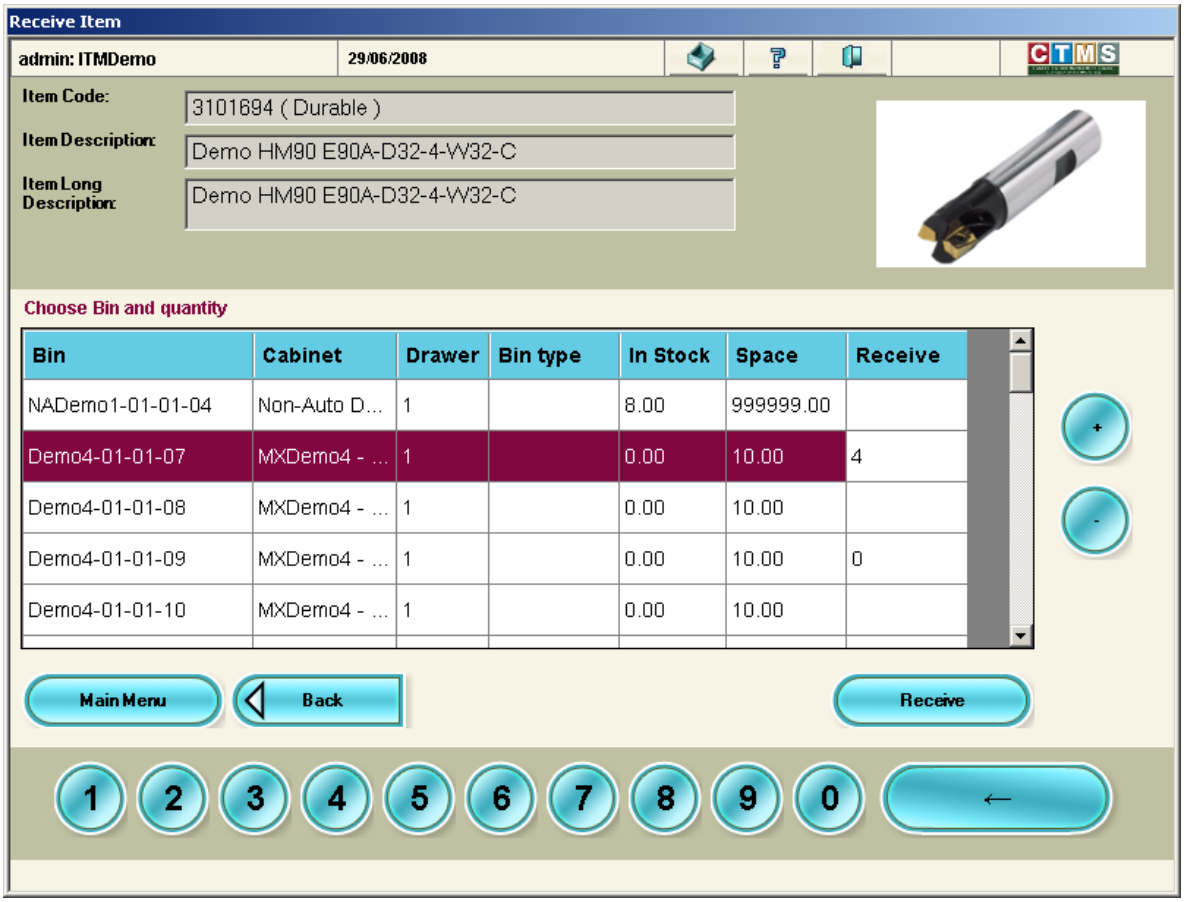
For example: In interface to SAP, Reference 1 = PO Number, Reference 2 = PO Line No.

Edit the reference fields and press on the <Next> button.

For more details, see Chapter D: Interfaces (section 24).

If the System Option **111** is set to 0 or none, the "References" screen will be skipped.

3. The "Receive Item" screen will appear, as below.



The table displays the bin/bins allocated to this item and that have enough space to receive the item in the current TOUCH station.

4. Edit the quantities to receive in the “Receive” field by using the Add/Reduce buttons or through the virtual keyboard and press on the <Receive> button.
5. Open the drawer and put the items to receive into the allocated bin/s.
6. Close the drawer.
   Stock will be updated and a 'Receive' transaction/s will be created.

13.9 Working with Key to Lockers

MATRIX-TM lets you manage Keys. Keys are stored in MATRIX cabinet and external lockers (defined as bins of a Non-Automatic cabinet) connected to the key.
When issuing an item located in an external cabinet or locker, the MATRIX cabinet will actually issue the key for the locker, and create separate transactions: one for the key and

one for the item.

To enable this process, please make first the item definitions in Manage module as described in Chapter B: Key Management (section 5.4.6).

Here are described Touch modules and the way the Key Management is handled in each:

Issue: When item in locker is selected for issue, it opens the bin with the key and two transactions are created - **Issue** transaction for the key and **Issue** transaction for the item. The Issue of the key itself is **not available**.

Receive / Receive without Order: When item is selected to be received to a locker, it opens the bin with the key and two transactions are created - **Issue** transaction for the key and **Receive** transaction for the item. The Receive of the key itself is **not available** (In 'Receive' it shows the item, but filters the bins marked as 'Used'. In 'Receive without Order' it filters the item of Key type).

Return: When an item is selected to be returned to locker, it opens the bin with the key and two transactions are created - **Issue** transaction for the key and **'Return to Cabinet'** transaction for the item. The Return of the key itself is **available** in order to place the key back after the operation from the locker was completed.

Transactions: When item issued from locker is selected to be returned, it does not open the bin with the key and creates only **reversed Issue** transaction for the item. The return of the key itself is available – it opens the bin with the key and creates **reversed Issue** transaction.

Adjust Item: When item in locker selected to be adjusted, it opens the bin with the key and in case quantity is changed two transactions are created - **Issue** transaction for the key and **Adjust Bin Quantity** transaction for the item. The Adjust of the key itself is **available**.

Count Bins: When item in locker is selected to be counted, it does not open the bin with the key and creates only **'Stock Count'** transaction for the item. The count of the key itself is available – it opens the bin with the key and creates **Stock Count** transaction.

Transfer Order: When item in locker selected to be transferred, it opens the bin with the key and two transactions are created – **'Issue'** transaction for the key and **'Transfer'** transaction for the item. The Transfer of the key itself is **not available** (It filters the bins marked as 'Used').

14 Common Problems

14.1 Machine problems

Problems caused by hardware or system failures of the MATRIX cabinet.

In the case of a problem:

- Consult the Hardware Manual, Troubleshooting (if a hardware problem); and
- Contact your support hotline; and
- Send the error log by printing it or sending it by e-mail.

How to send the log:

1. In the Manage system, go to:
   "Menu: Administration → Touch Machine → Cabinet Log".
2. In the parameter search choose the date of the problem in the "Date" field.
   Click the  <Search> button.
3. Click the  <Print> button on the Menu bar.
   An excel file will be opened. You can send it by mail or print it.

14.2 Error Message Descriptions

Error message number	Error Message	Error description & solution
90001	Wrong Row Id	The system manager must correct **Z** value in the Bin Units of the cabinet.
90002	Wrong Solenoid Id	The system manager must correct **X** value in the Bin Units of the cabinet.
90004	Wrong Cabinet Id	Trying to open a cabinet that does not exist in the system. Call system manager / technician.
90005	Command Is Already In queue – Device Is Busy	Close the drawers.
90006	Unable to open compartment	Requested bin lid does not open. Call support.
90007	No connection to Cabinet/Drawer	No connection with requested cabinet / drawer. Call support.
90008	Problem with Connection	No connection with the machine. Call support.
90009	Port Is Not Open	Problem with connection port. Call support.
90011	Wrong Drawer Id	The system manager must correct **Y** value in the Bin Units of the cabinet.
90012	Buffer Is Full	Exit and Re-Enter the system.
90013	Port Is Not Available	Connection port not available. Call technician.

CHAPTER D: SYSTEM ADMINISTRATION

Introduction

This Chapter of the Guide is intended for the use of the system manager.

The system manager is a "Super User" that is permitted to create users and manage general data in the system.

In order to be familiar with the whole system you must read the entire User Guide, and follow the technical directions mentioned in Chapter B: Operational Principles (section 4.3).

The administration screens are used for the following purposes:

- Managing and maintaning the system tables.
- Defining users, groups of users and authorizations.
- Support of system language and texts.
- Maintenance of the system parameters which affect the way the system will perform.

15 Settings

Defining the basic setting of the system:

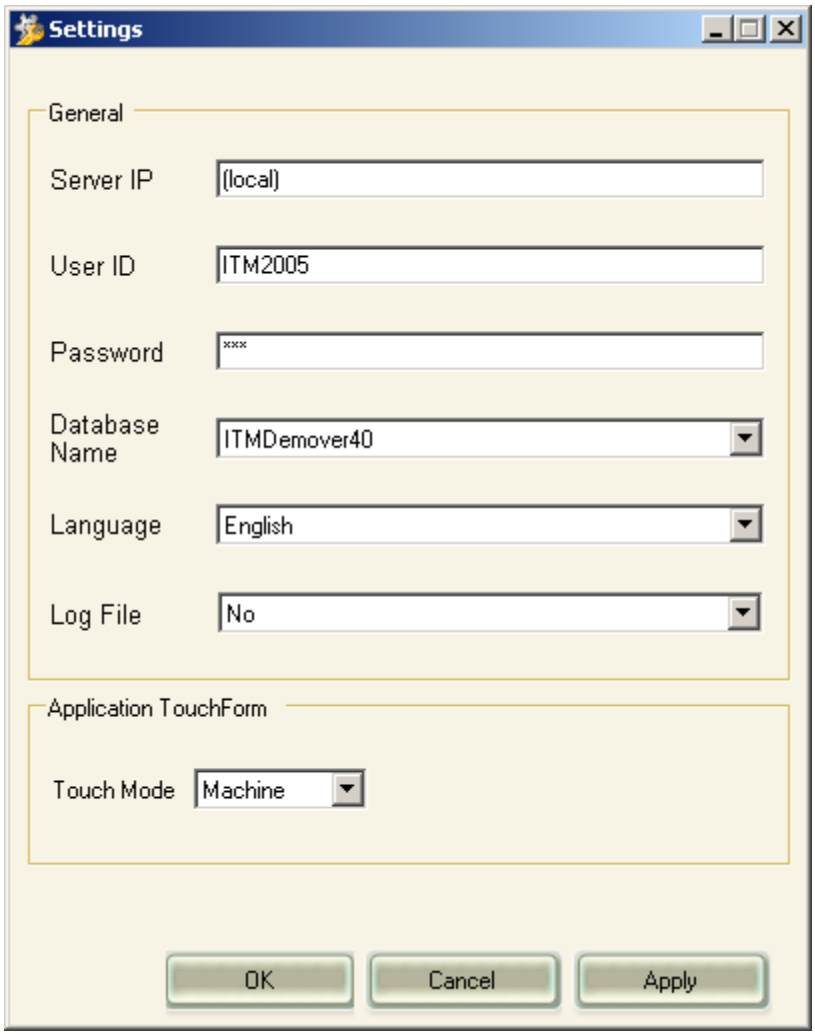
In order to set the following parameters you need to use the Setting program.

There are two ways to get to the Setting program:

- In the Main menu go to the "Menu: Administration → Settings"
- Use the Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → MATRIX-TM Settings

15.1 Settings configuration

The "Settings" screen:



Server IP: Is the server name where the database of MATRIX is located. If the database is running on the same computer where the MATRIX is installed, then put in this field the name **local**.

User ID: This is the user ID which is used to access the database (Initially will be ITM)

Password: This is the password which is used to access the database (Initially will be ITM)

Database Name: This is a combo box that lets you chose a database from the list.

Language: This combo includes all the installed languages. Choose one.

Log File: The system will be able to create logs on the selected level. You can find those logs in the directory "Logs" under the installation directory. Select a log level.

No – No error logs will be written.

Minimum – Logs will be written only on selected events.

Maximum – Extensive logs will be written.

Touch Mode: Select the mode to run Touch application.

Machine – working with cabinet machine.

Virtual – working virtually with no cabinet machine and no simulator.

Simulator – working virtually with simulator cabinet.

For more information, please refer to Chapter A: Connect to the Database (section 3.1).

15.2 Working with different languages

One of the specialties of the system is its ability to work with different languages.

The MATRIX-TM software has a very strong language support. You can see what languages are supported by MATRIX if you pull down the Language menu of the Setting Configuration Editor through "Menu: Administration → Settings"

15.2.1 Defining Texts

All existing Texts in the system are saved under the menu "Menu: Administration → Texts".

Each text in the system is defined with a text code. For each text there is defined a number of translations to different languages.

The default language is English (en-US).

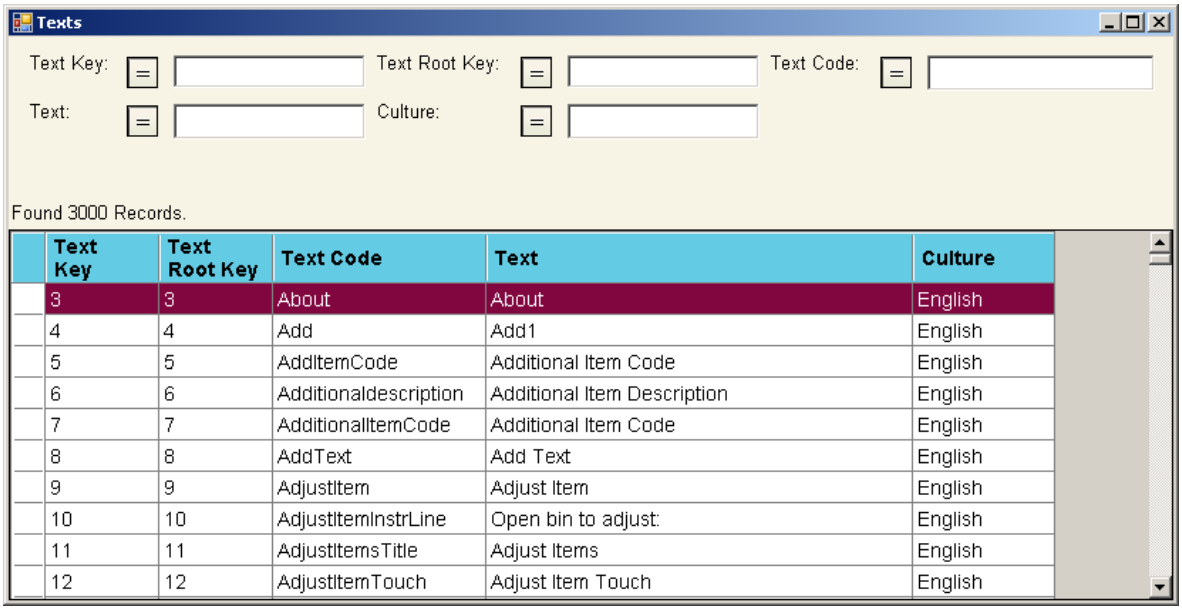
The system manager adds the translated text for the new language.

There are 4 types of texts:

1. Page Titles – Heading of each page
2. User controls – Field names within the screens
3. General Texts – General texts. For example: Button names
4. Messages

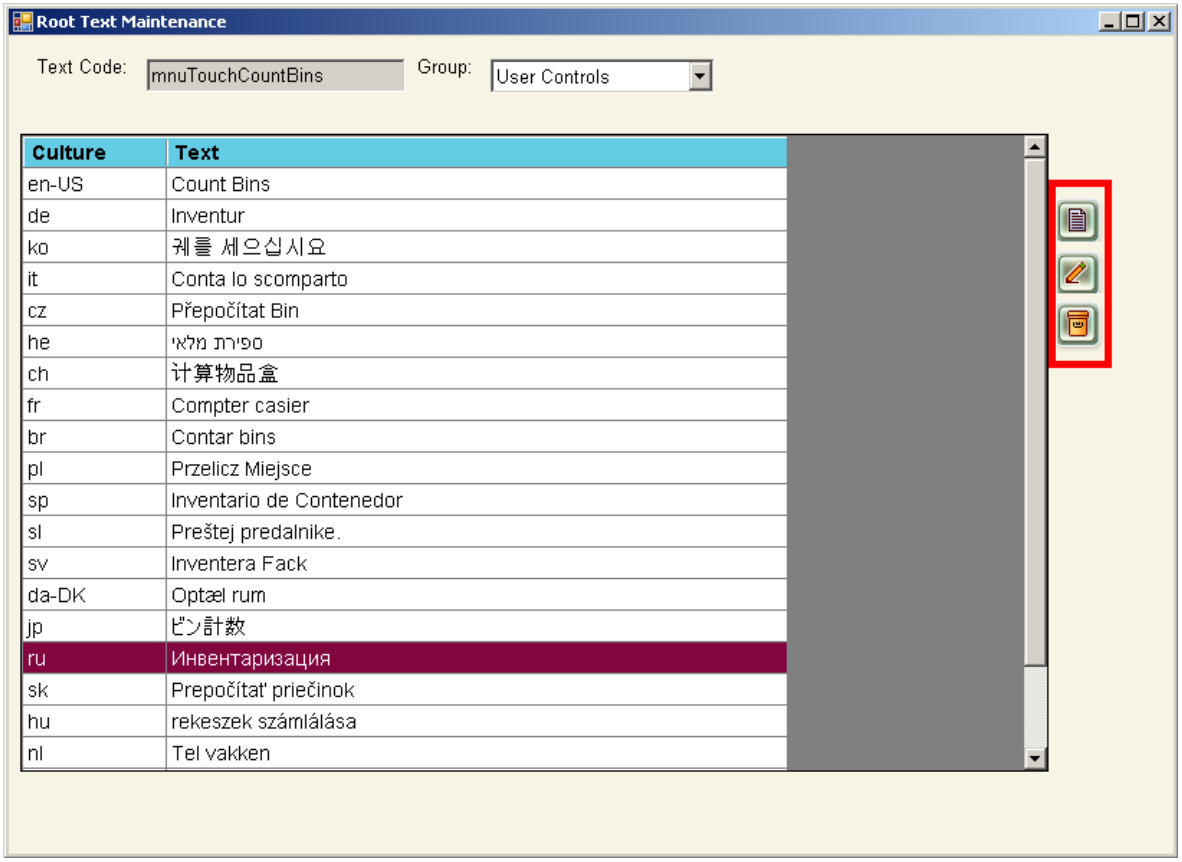
15.2.2 Search Texts

1. Enter menu "Menu: Administration → Texts".



Text Key	Text Root Key	Text Code	Text	Culture
3	3	About	About	English
4	4	Add	Add1	English
5	5	AddItemCode	Additional Item Code	English
6	6	Additionaldescription	Additional Item Description	English
7	7	AdditionalItemCode	Additional Item Code	English
8	8	AddText	Add Text	English
9	9	AdjustItem	Adjust Item	English
10	10	AdjustItemInstrLine	Open bin to adjust:	English
11	11	AdjustItemsTitle	Adjust Items	English
12	12	AdjustItemTouch	Adjust Item Touch	English

2. Locate the text that you wish to translate and double-click the record or click the <Update> button. The following window will then appear:



Culture	Text
en-US	Count Bins
de	Inventur
ko	궤를 세으십시요
it	Conta lo scomparto
cz	Přepočítat Bin
he	ספירת מלאי
ch	计算物品盒
fr	Compter casier
br	Contar bins
pl	Przelicz Miejsce
sp	Inventario de Contenedor
sl	Preštej predalnike.
sv	Inventera Fack
da-DK	Optæl rum
jp	ビン計数
ru	Инвентаризация
sk	Prepočítať priečinok
hu	rekeszek számlálása
nl	Tel vakken

This grid displays translations of the selected text to different languages supported by the system. The buttons on the right side of the grid allow you change/delete the existing translations or add a missing translation.

3. For update, select the relevant culture record and click the <Update> button.
   The following window will then appear:



4. Make the required changes and click the <Save> button.
5. Click the <Save> button on the main toolbar.

Note: Only "Messages" group translations are effective online. All other translations require re-entering to the system.

16 System Tables

In order to open the tables, click the "System Tables" menu.
This menu will give you the ability to Search, Update and Delete existing records or create new records in the different tables. The correct way of working is to follow the operating principles described in the User Guide.

Existing tables in the system:

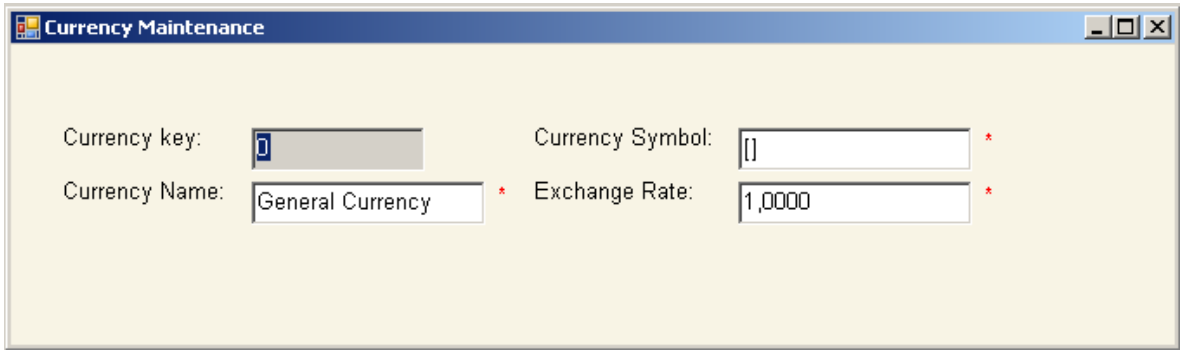
- Currency
- Item Category
- Item Group
- Item Authorizations Group
- Shipping Method
- Site
- Budget Group

- Unit of Measure

16.1 Currency

In order to define a new currency, follow the next steps:

1. Go to "Menu: System Tables → Currency".
2. Click the <Add> button and the following screen will appear:

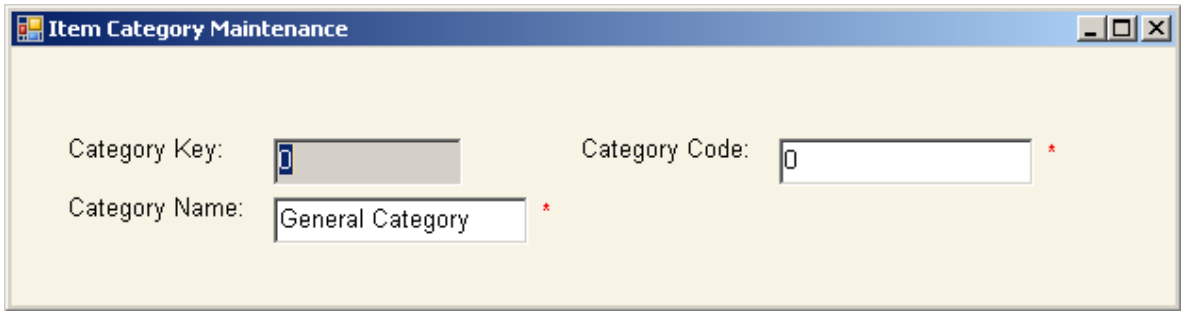


3. Fill in the data: Currency Symbol, Currency Name, Exchange Rate
4. Click the <Save> button.

16.2 Item Category

In order to define a new item category, follow the next steps:

1. Go to "Menu: System Tables → Item Category".
2. Click the <Add> button and the following screen will appear:



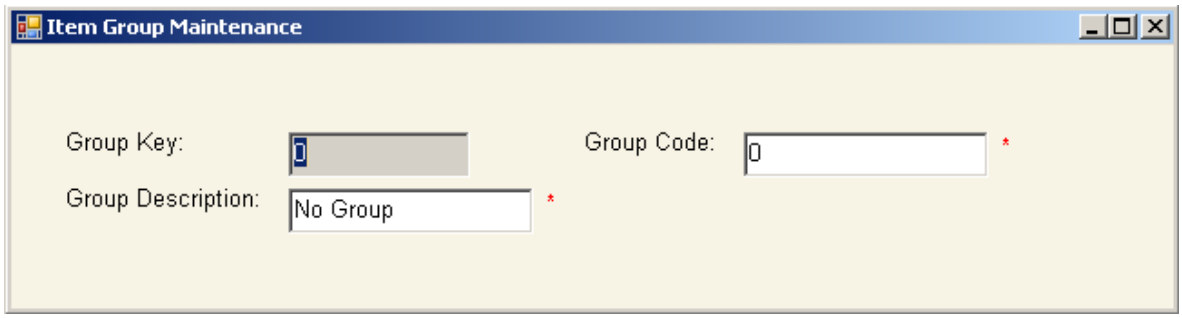
3. Fill in the data: Category Code, Category Name

4. Click the <Save> button.

16.3 Item Group

In order to define a new item group, follow the next steps:

1. Go to "Menu: System Tables → Item Group".
2. Click the <Add> button and the following screen will appear:



3. Fill in the data: Group Code, Group Description
4. Click the <Save> button.

16.3.1 Add Images to Item Groups

The item Group image can be displayed in the Manage and Touch modules.
To use this feature, the folder defined in System Option **404** (Group Pictures path) must contain all the files with the extension as defined in System Option **204** (Picture File Type).
When displaying item Groups in Touch, the system will try to find the compatible image and to display it. If no matching file is found, then 'No Image' will be displayed.
In Manage, the image of item Groups will be displayed for Items that do not have their own image.

1. Rename the image file using Item 'Group Code' value and extension such as defined in the System Option **204** (jpg / gif / bmp).
   For example, the image name of group with Group Code = 10 will be: **10.gif**
2. Put the image file in the folder defined in the System Option **404**.

Recommendation: Locate the image files in one folder shared to all the Matrix users and set the system option **404** (for example, \\pcname\Matrix\GroupImages). This will prevent unnecessary copies of files and maintenance for each folder separately.

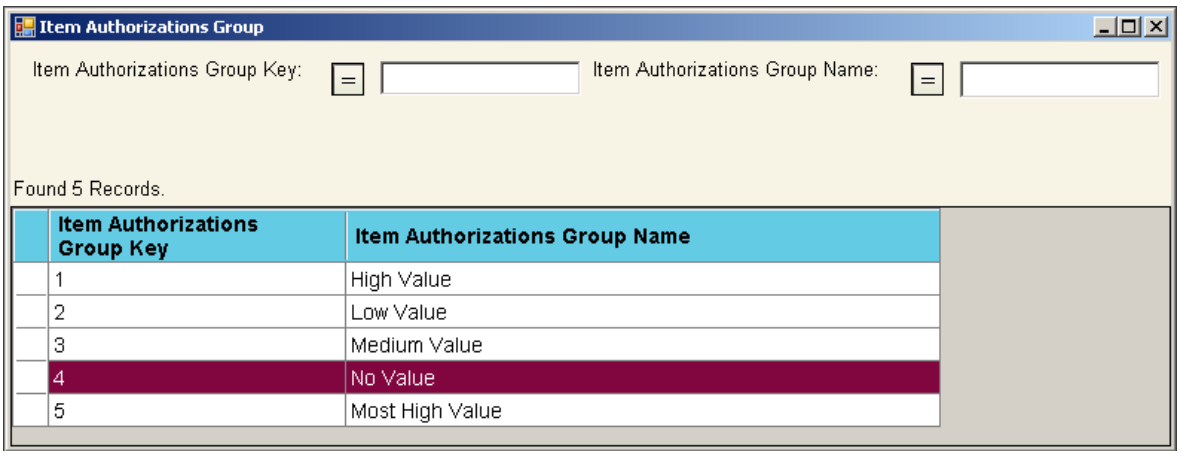
16.4 Item Authorizations Group

In case that you want to restrict the issue of items to certain employees, you can use the Authorization by Item option. To activate this option you need to define four parts:

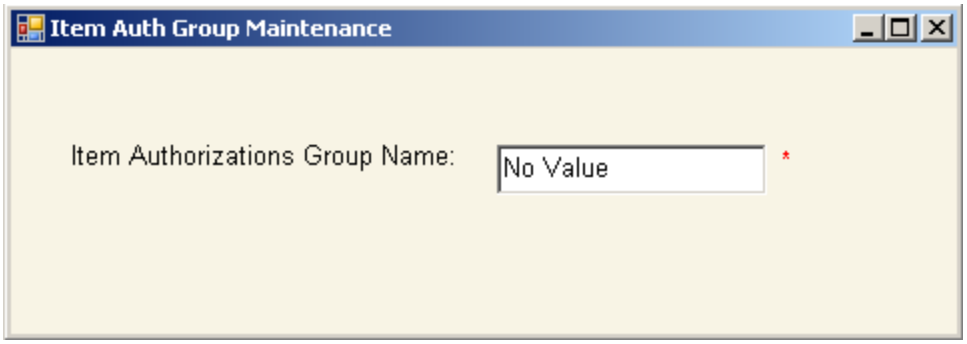
- Define Item Authorization Groups.
- Define User Groups (this topic is covered in Chapter D: Group of Users (section 18.1)) – when adding users to the system, you will be required to link them to a User Group to define their use rights).
- Link items to an Item Authorization Group.
- Link User Groups with the Item Authorization Groups.

16.4.1 Defining Item Authorization Groups

1. Go to: "Menu: System Tables → Item Authorization Group"
2. Define the Item Authorization Group. Try to plan the number of groups that you want to use taking into account that a smaller number of groups will make it easier to manage.

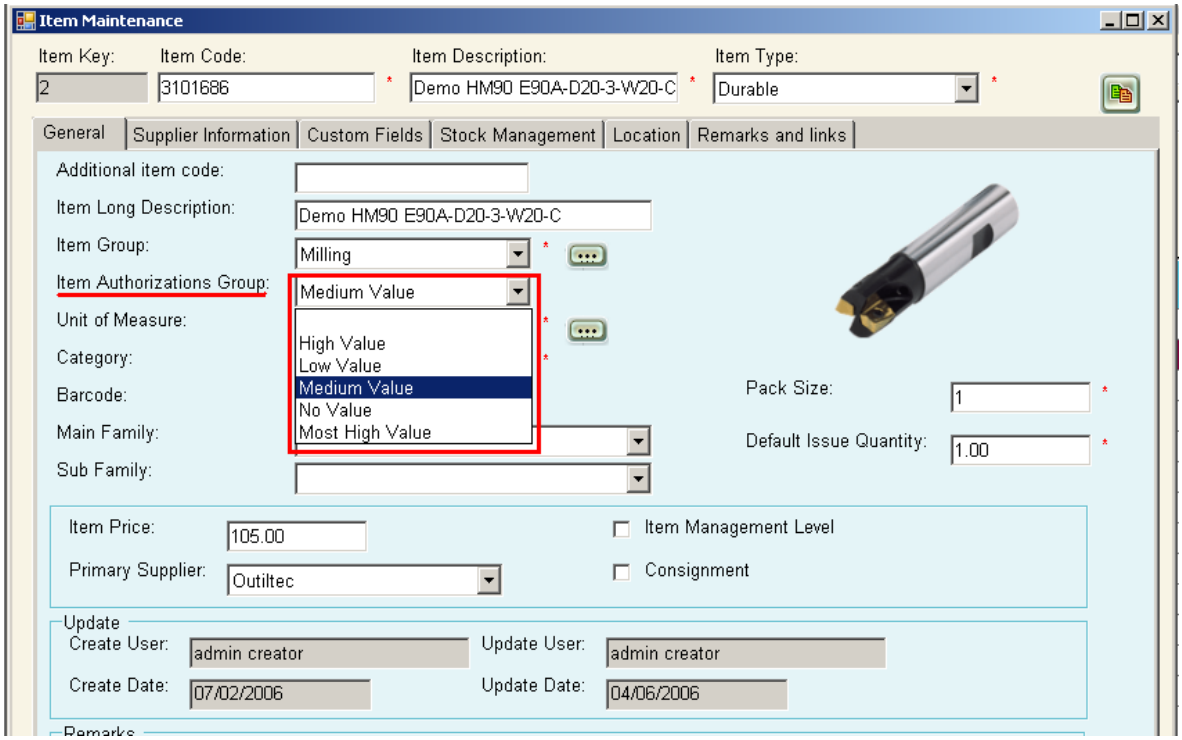


All you need to define to create an Item Authorization Group is the Group Name.



16.4.2 Linking items to an Item Authorization Group

In order to connect an item, go to the item maintenance option. You will find the Item Authorization Group field. You have a combo box that lets you link the group to this item.



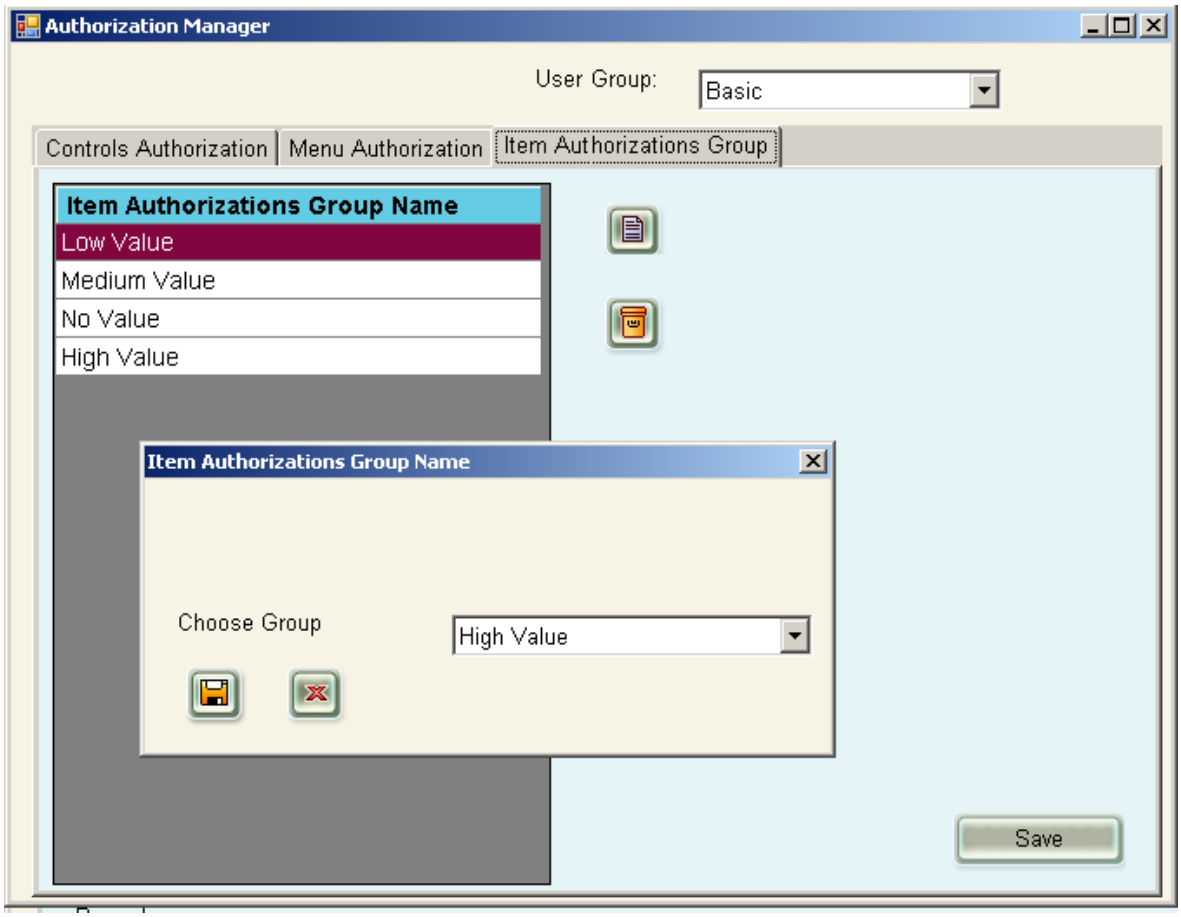
An item which is not assigned to a group, may be accessed by all users.

16.4.3 Link User Groups with the Item Authorization Group

Once the Item Authorization Groups are defined you need to link them to User groups. This means that the chosen User Group is authorized to issue items from the chosen Item Authorization Group.

1. Go to: "Administration → Users and Authorizations → Authorization Manager"
2. In the Authorization Manager choose the "Item Authorization Group" tab. Here you can connect the User Group to the Item Authorization Group.

   In order to connect a new user group, simply click on the  <Add> button and from the combo list chose the group you desire.



16.4.4 Issue of Items subject to Authorization restrictions

The issue option in Manage and Touch will restrict you to choose items that you are authorized to issue. Such items are part of an item authorization group which is defined for the User Group allocated to the specific user. Please notice: an item with no group is available for all users.

16.5 Shipping Method

In order to define a new shipping method, follow the next steps:

1. Go to "Menu: System Tables → Shipping Method".
2. Click the <Add> button and the following screen will appear:

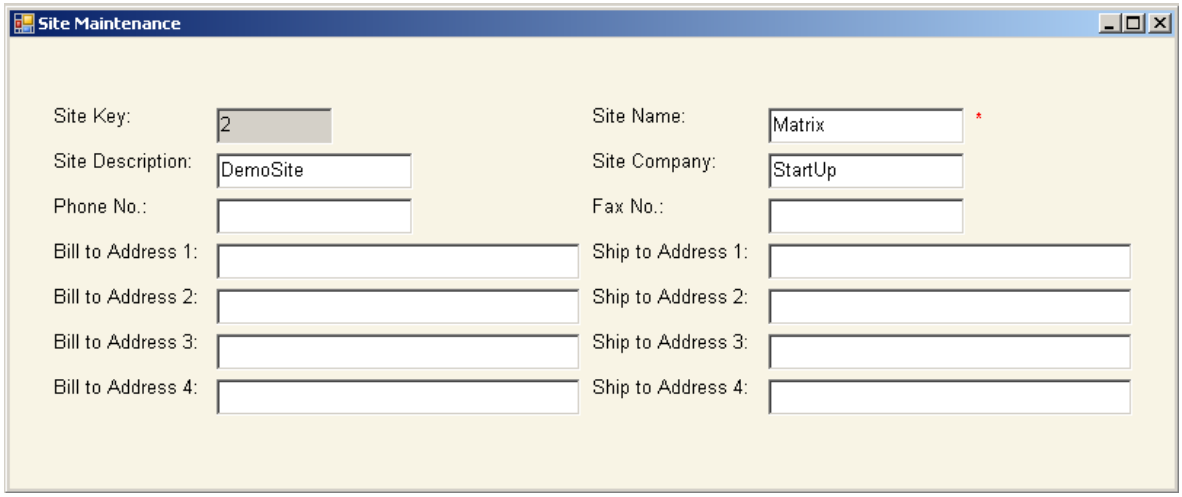


3. Fill in the data: Shipping Method Name
4. Click the <Save> button.

16.6 Site

In order to define a new site, follow the next steps:

1. Go to "Menu: System Tables → Site".
2. Click the <Add> button and the following screen will appear:



3. Fill in the data: Site Name, Site Description, Site Company and other contact details
4. Click the <Save> button.

16.7 Budgets for Issue

You can restrict the issue of items from MATRIX-TM Touch according to a defined budget. Each time a user wishes to issue an item via MATRIX–TM Touch, the requested issue will be checked to ensure that it does not exceed the **user's** budget, either by quantity and / or amount, within a specific time period.

Budget options

We can define a budget by **Quantity** and / or **Amount**:

- In the Budget Group we have budget definitions by item, quantity and days.
- In the User Group we have a definition by amount and days

16.7.1 Budget by Quantity of Items

Issue process with budget restrictions

If system option 107 is set, the user's User Group is attached to a Budget Group and the requested item is in that group, MATRIX-TM will allow the item to be issued subject to the following quantity restriction:

$$\text{Allowed Quantity} = \text{Budget Quantity for the defined period} - \text{Quantity issued to date for the defined period}$$

For example:

If the number of days defined is 2, the system checks transactions for today and yesterday. If the number of days is 7, the system will check the last 7 days.

To create budget definitions:

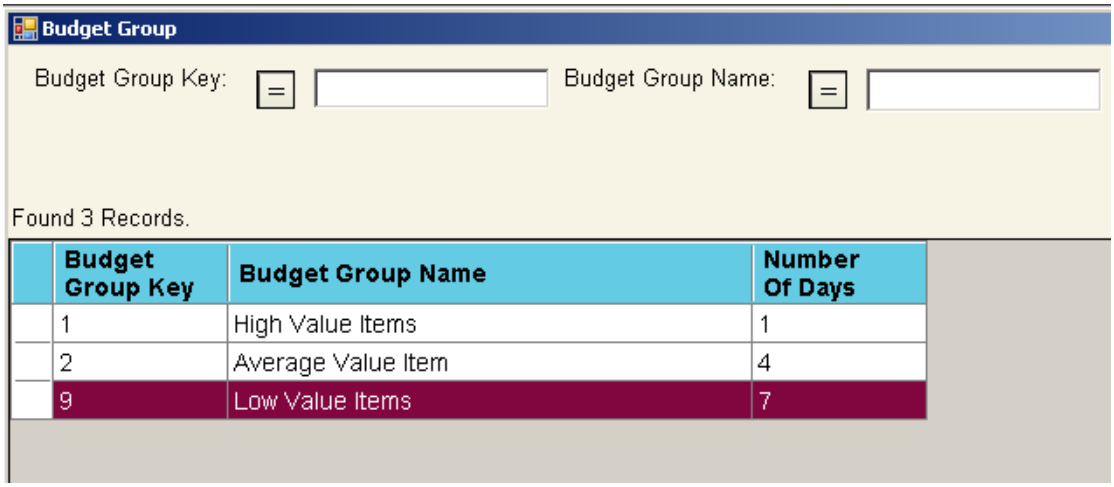
To restrict issue by quantity of items you will need to activate the budget, to create budget group and to link budget group to the user group.

Activate budget:

1. Set System Option 107 (Activate issue budget by Quantity of items) = YES

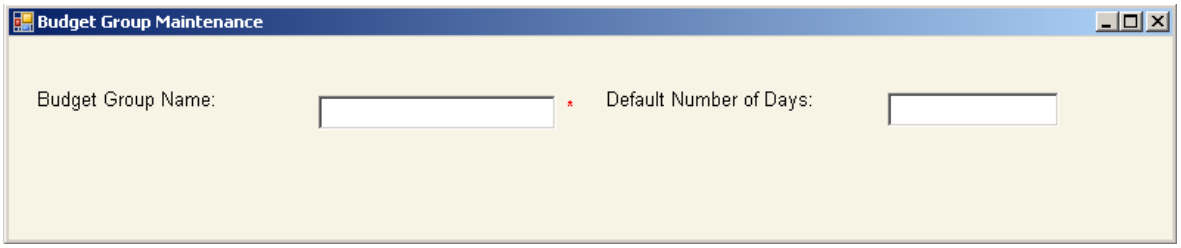
Create budget group:

2. Go to: "Menu: System Tables → Budget Group"

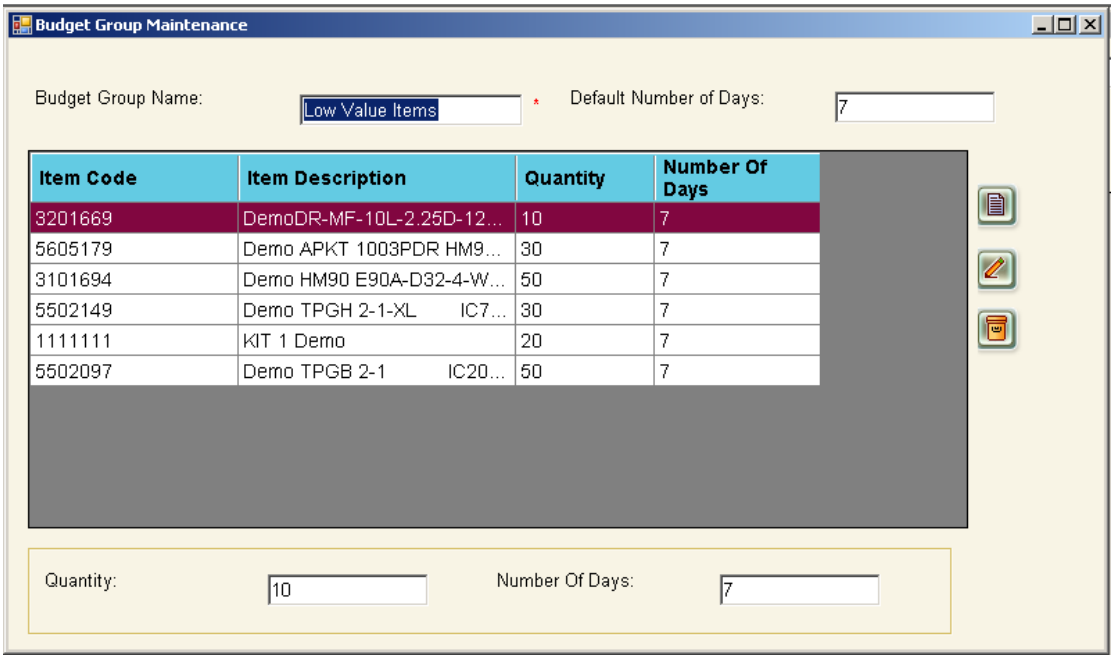


Budget Group Key	Budget Group Name	Number Of Days
1	High Value Items	1
2	Average Value Item	4
9	Low Value Items	7

3. Click the <Add> button on the toolbar to add a new budget group.
   The following screen will be displayed:



4. Fill in the required fields and click the <Save> button. The Budget group will be created and grid will be displayed for adding new items.



5. Click the <Add> button on the right side of the grid and select the desired item from the opened "Search Item" screen. The item will be added to the grid.
6. Fill in the following fields for each added item:

   Quantity: The maximum quantity of the item that can be issued

   Number of Days: Number of days for which this quantity budget will be checked

7. Repeat the step 5-6 to add items to list.

Use the  <Update> and  <Delete> buttons to maintain the item records.

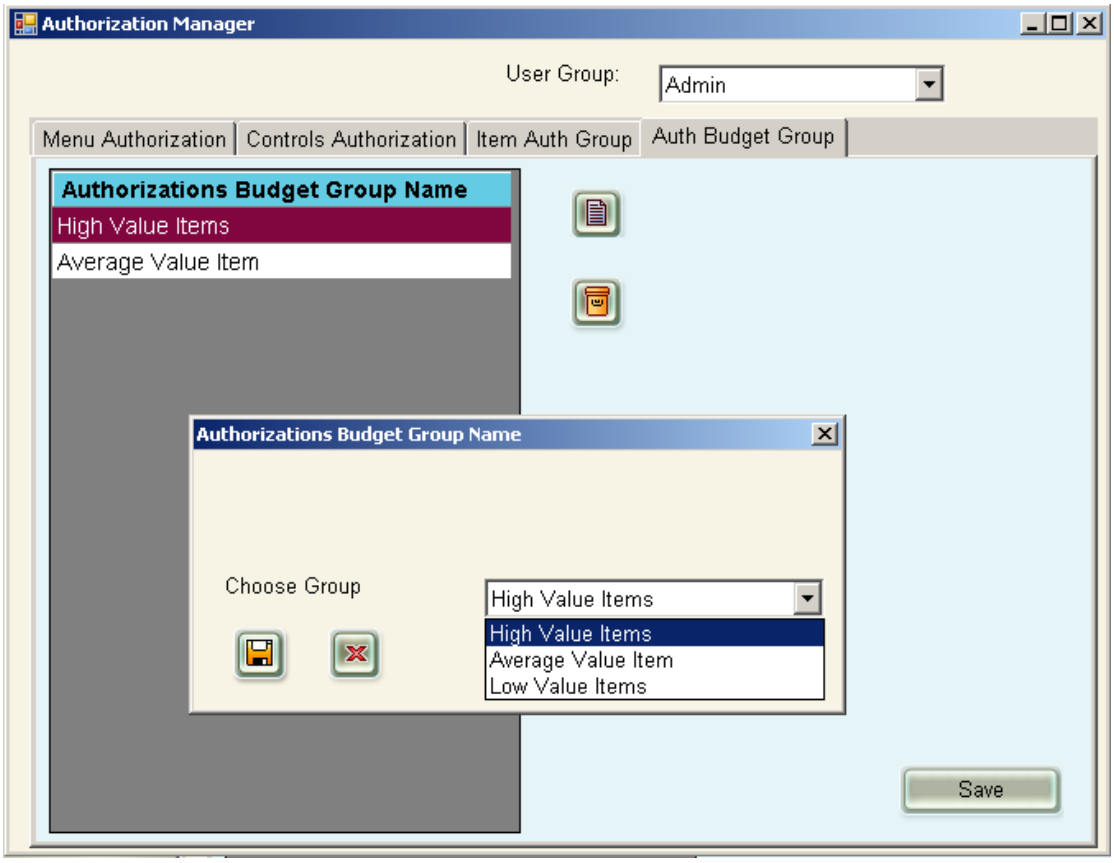
8. Click the  <Save & Close> button to save all the definitions. The budget group will be added to the list of budget groups. To add more items and item details, use the  <Update> button or double click on the desired budget group.

Link budget group to a user group:

Once the Budget Groups are defined, you need to link them to User groups. This means that a user within the chosen User Group is limited to issuing items according to the items defined in the Budget groups, their quantities in the defined period.

9. Go to: "Administration → Users and Authorizations → Authorization Manager".
10. In the Authorization Manager choose the "Budget Authorization Group" tab. Here you can connect the User Group to the Budget Group.

    In order to connect a new user group, click the  <Add> button and from the combo list chose the group you desire.



Note: If there is no Budget group associated with the user group, it means that no budget restrictions apply to the users in this User Group.

16.7.2 Budget by Amount

Issue process with budget restrictions

If system option 108 is set and the user's User Group has a defined Budget amount, MATRIX-TM will allow the item to be issued subject to the following quantity restriction:

$$\text{Allowed Quantity} = \frac{\text{(Budget amount – Amount already issued per User)}}{\text{Item Price}}$$

Note: **Amount already issued per User** is summed from the **value in Issue transactions** in the last number of days defined for the user.

To create budget definitions:

To restrict issue by amount you will need to activate the budget and to define amount limitations for the user group.

Activate budget:

1. Set System Option 108 (Activate issue budget by Amount) = YES.

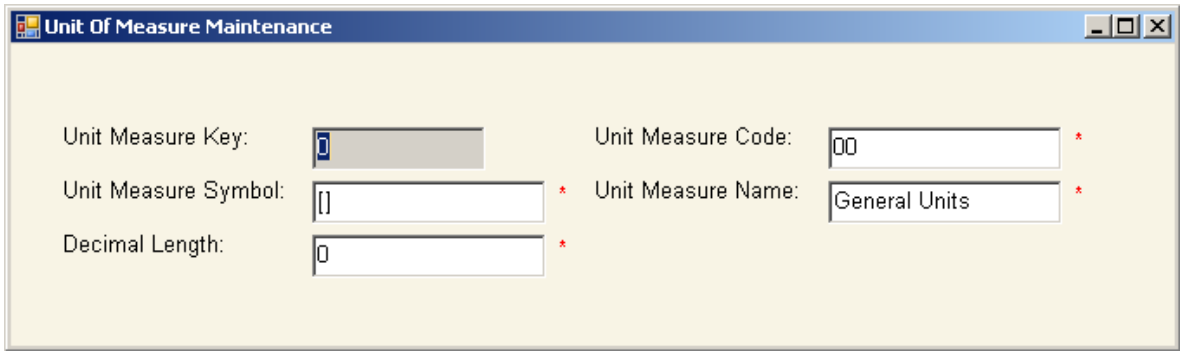
Define budget for user group:

2. The budget definitions for Amount and Days are added on User Group screens. Please continue to Chapter D: Group of Users (section 18.1) to define budget amount and budget days for the user group for which you wish to restrict the issue.

16.8 Unit of Measure

In order to define a new unit of measure, follow the next steps:

1. Go to "Menu: System Tables → Unit of Measure".
2. Click the <Add> button and the following screen will appear:



3. Fill in the data: Unit Measure Code, Unit Measure Symbol, Unit Measure Name and Decimal Length

4. Click the  <Save> button.

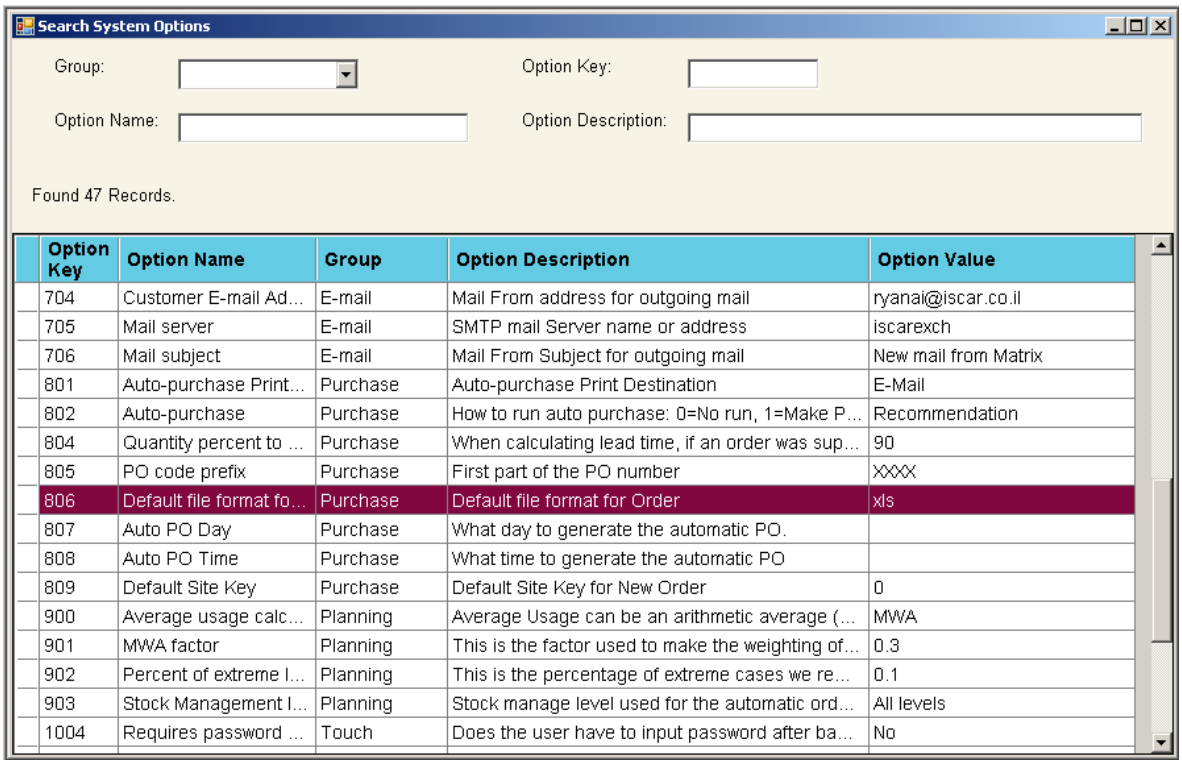
17 System Options

The system options are parameters which define how the system will behave in different operations. This is a very powerful tool that lets the organization which operates MATRIX-TM to adapt the way the system behaves to its individual needs.

17.1 Find System Option

In order to find defined system option you should follow these steps:

1. In the main menu go to "Menu: Administration → System Options".
   The following screen will appear:



Option Key	Option Name	Group	Option Description	Option Value
704	Customer E-mail Ad...	E-mail	Mail From address for outgoing mail	ryanai@iscar.co.il
705	Mail server	E-mail	SMTP mail Server name or address	iscarexch
706	Mail subject	E-mail	Mail From Subject for outgoing mail	New mail from Matrix
801	Auto-purchase Print...	Purchase	Auto-purchase Print Destination	E-Mail
802	Auto-purchase	Purchase	How to run auto purchase: 0=No run, 1=Make P...	Recommendation
804	Quantity percent to ...	Purchase	When calculating lead time, if an order was sup...	90
805	PO code prefix	Purchase	First part of the PO number	XXXX
806	Default file format fo...	Purchase	Default file format for Order	xls
807	Auto PO Day	Purchase	What day to generate the automatic PO.	
808	Auto PO Time	Purchase	What time to generate the automatic PO	
809	Default Site Key	Purchase	Default Site Key for New Order	0
900	Average usage calc...	Planning	Average Usage can be an arithmetic average (...	MWA
901	MWA factor	Planning	This is the factor used to make the weighting of...	0.3
902	Percent of extreme l...	Planning	This is the percentage of extreme cases we re...	0.1
903	Stock Management l...	Planning	Stock manage level used for the automatic ord...	All levels
1004	Requires password ...	Touch	Does the user have to input password after ba...	No

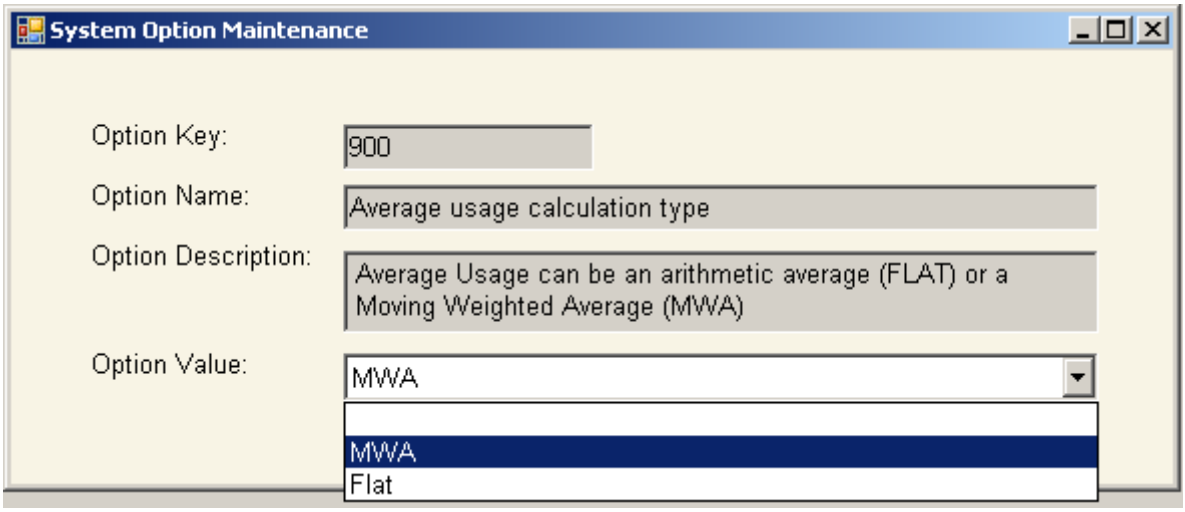
2. At the top part of the screen in the "Group" combo-box choose the group of options that you wish to find. The list will be narrowed to your selection.

17.2 Update System Option

In order to fill in or update the value for the parameter:

1. Select the system option you wish to update from the search list and click the <Update> button on the Menu bar.

   A screen like the following will appear:



2. Enter to the "Option Value" field the requested value.

   Click the <Save> button on the Menu bar.

17.3 Table of System Options

The following table lists all the system options and their descriptions as they appear in the Manage application.

Option	Option Name	Option Description
0	Database Version	Database Version - D o N o t C h a n g e ! ! !
1	Installation Path	MATRIX-TM Installation Path - D o N o t C h a n g e ! ! !
105	Over Receive Percentage	The percentage that determines the Additional quantity of items above the Ordered Quantity that a user can receive in 'Receive' process.
106	FIFO Bin Selection	Issue in FIFO (First In, First Out) order so that the oldest received bin will be issued first.
107	Activate issue budget by Quantity of items	If the budget is activated, then before allowing an item to be issued the system will verify that the user did not exceed the Quantity budget limit for this item. If the requested quantity exceeds quantity budget, the requested issue will not be allowed.
108	Activate issue budget by Amount	If the budget is activated, then before allowing an item to be issued the system will verify that the user did not exceed the Amount budget limit. If the requested quantity exceeds amount budget, the requested issue will not be allowed.
109	Force to issue old items before new items	If checked, the TOUCH module will compel the issue of Used / Reworked items before displaying new items.
110	Display options for partial receive?	Display options to close order line or remain open when the order line is received partially. If unchecked, the order line will not be closed until fully received.

Option	Option Name	Option Description
111	Number of reference fields to use on Receive	Number of reference fields to use on 'Receive' process for interfaces with ERP systems.
112	Type of Reference fields	Type of Reference fields for Interfaces: Numeric or Text.
201	Font Size	Font Size used for buttons in TOUCH module.
203	System Currency Key	The system currency key.
204	Picture File Type	File type for item pictures.
205	Number of Records to display	Maximum number of records to display in search screens.
206	Default Unit of Measure	Default unit of measure for new items.
207	No. of days to keep Log	Number of days to keep Log.
208	Bar-Code font	Bar-code font for reports.
209	Create Scheduled Reports	Activate job that automatically creates the Scheduled reports.
210	Display records on Search	Displays records when opening search screen.
211	Report Footer	Text for Report Footer.
212	Report Header	Text for Report Header.
213	Number of months with no Item/Bin activity	Number of months with no activities on Item/Bin for defining them as Dead for the reports.
300	Default Lead Time	The default value for the Lead Time of Item Supplier and also for the Monthly Average Lead Time calculation.
301	Number of months for Average calculations	How many months to use for calculating the Average Usage, Frequency and Lead time during the monthly process.
303	Last Monthly Process	Last month (in format MMYY) that was fully processed and updated automatically by the Monthly Process.
304	End of Month Day	The day to run the Monthly Process (end of month process).
305	End of Month Time	The time to run the Monthly Process (end of month process).

Option	Option Name	Option Description
400	Item Pictures path	Path for the ITEM picture files.
401	Reports path	Path for automatically generating Scheduled reports.
402	Logo path	Path for program Logo image.
404	Group Pictures path	Path for the ITEM GROUP picture files.
600	Create Database Auto-Backup	Activate job that automatically creates the Backup copy of the Database.
602	Database Auto-Backup folder	Path for Auto-Backup copy of the Database.
603	Database Auto-Backup scheduler	Day to create Auto-Backup of the Database.
604	No. of days to keep Database Backup	Number of days to keep Database Backup.
605	Database Auto-Backup Time	Database Auto-Backup Time
701	Server Port	SMTP server mail port.
702	User Name	User name, if SMTP server requires authentication for outgoing email.
703	User Password	User password, if SMTP server requires authentication for outgoing email.
704	Sender email	Mail <From> address for outgoing mail.
705	Mail Server	SMTP mail Server name or address.
706	Mail subject	Mail <Subject> for outgoing mail.
707	Use SSL	Use Secure Authentication. When the network security requires secure authentication in sending email, this parameter must be set.
708	E-Mail for Technical Support	E-Mail address for Technical Support.
801	Auto-Purchase print destination	Auto-Purchase print destination.
802	Auto-Purchase creation mode	How to run auto purchase: 0=No run, 1= Create purchase Draft, 2= Create purchase Orders, 3=Create purchase Orders and Send to supplier.
804	Percent for considering order line as supplied	For calculating lead times of suppliers, if an order was supplied to this percent, it will be considered as having been supplied.

Option	Option Name	Option Description
805	PO code prefix	First part of the Purchase Order number.
806	Default file format for order	Default file format for Order.
807	Auto PO Day	What day to generate the automatic PO.
808	Auto PO Time	What time to generate the automatic PO.
809	Default Site Key	Default Site Key for New Order.
810	Critical Minimum Stock Percent	Percent from the Minimum stock quantity that determines the critical stock level. This value is used only for 'Advanced Stock Shortage' reports. Stock below minimum but above this percent is considered as Non-Critical shortage. Stock below minimum and below this percent is considered as Critical shortage.
811	Show Item Code and Description of Supplier	In printed order, show Item Code and Description of Supplier.
812	Auto PO Code	The next automatic order will have this code. It is incremented automatically.
900	Average usage calculation type	Average Usage can be an arithmetic average (FLAT) or a Moving Weighted Average (MWA).
901	MWA factor	The factor used to make the weighting of the MWA average. Please use values in range of 0 - 1.
902	Percent of Extreme lead time cases	The percentage of extreme cases (between 0 - 0.99) when the lead time was very short or too long. The Monthly Process will ignore them when calculating the average lead time.
903	Stock Management level	Stock management level used for the automatic order calculation. 1 = BIN level ordering. 2 = ITEM-CABINET level ordering. 3 = ITEM level ordering. 4 = Combination of all levels ordering.

Option	Option Name	Option Description
904	Item from Reworked bin good as New	If checked, Reworked bin will function the same as New bin for Reworkable items: 1) The stock from Reworked bin will be summed up from the Bin level to the Cabinet and Item levels. 2) The Receive process will allow using reworked bin for receiving new item and new bin for receiving reworked item, meaning mixing in one bin new and reworked items.
905	Item from Used bin good as New	If checked, Used bin will function the same as New bin for Durable/Kit items: 1) The stock from Used bin will be summed up from the Bin level to the Cabinet and Item levels. 2) The Receive & Return processes will allow using used bin for new item and new bin for used item, meaning mixing in one bin new and used items.
1004	Require password when badge is scanned	Does the user have to input password after badge is scanned?
1007	Login Time-out	Waiting time (in seconds) until the system will automatically log the user out, if no actions were taken. If Zero, then there will be no timeout.
1008	User for Automatic login	A specific User name is chosen. After loading TOUCH, the system will log that User in automatically and will not log him out after timeout.
1010	Show Keyboard on Item Search	Show virtual keyboard when opening search screen.
1011	Show Additional Item Code	Show the additional Item Code/Description on grid.
1012	Barcode Reader prefix	Prefix that Barcode Reader adds to the scanned code.
1013	Waiting time until Forcing transactions	Waiting time (in minutes) from opening drawer until considering the ISSUE or RETURN transaction as completed, if the drawer was not closed.
1014	Display options for issuing KIT?	Display options for issuing KIT as Assembly or as Separate Items. If unchecked, kit will be issued as Separate Items.

17.4 Special System Options

This section explains about system options that require special attention and described here with more details since wrong values for these options might cause different processes in the system not to work as expected.

A lot of the system options influence automatic processes, therefore it is recommended to set them when initiating the database and before the processes will start to run.

Option Key	Option Name	Special care
0	Database Version	This parameter must use sign for decimal value according to your regional settings. For example, for European settings use **coma** (,) and for US settings use **dot** (.).
1	Installation Path	This path must points to folder which includes the file **ScheduleServices.exe**.
203	System Currency Key	This key will be used for automatic orders. Verify that this key points to the expected currency.
204	Picture File Type	To ensure that all the pictures will be loaded properly, verify that all the files have extension as defined here.
205	Number of Records to display	New records are added to the end of the list, for example like with list of Transactions. If number of records will exceed this value, the last records will be cut. To see the last records as first records in the search screen, please sort the list, for example by key / date and save this sort. Next time the list will be opened with new records on top and the old records will be cut.
209	Create Scheduled Reports	Set this system option for creating automatic scheduled reports, job **[DBName]ReportsEngine**.
300	Default Lead Time	Set this value when initiating the database and before first Monthly Process starts to run.
301	Number of months for Average calculations	Set this value when initiating the database and before first Monthly Process starts to run.
303	Last Monthly Process	Set this value when initiating the database and before first Monthly Process starts to run.

304	End of Month Day	Set this system option for running automatic monthly process, job **[DBName]EndOfMonthProcess**.
305	End of Month Time	Set this system option for running automatic monthly process, job **[DBName]EndOfMonthProcess**.
400	Item Pictures path	Recommendation: Locate the image files in one folder shared to all the Matrix users and define here global path, for example: **\\pcname\Matrix\Images**. This will prevent unnecessary copies of files and maintenance for each folder separately.
401	Reports path	To created reports into path defined here, each Matrix user must have writing permissions for this path. If there is a problem with permissions, use folder which is **shared** for all the users or use environment variable such as **%TEMP%\MatrixTempDir\Reports**.
404	Group Pictures path	Recommendation: Locate the image files in one folder shared to all the Matrix users and define here global path, for example: **\\pcname\Matrix\Images**. This will prevent unnecessary copies of files and maintenance for each folder separately.
600	Create Database Auto-Backup	Set this system option for creating automatic backup, job **[DBName]AutoBackup**.
602	Database Auto-Backup folder	Recommendation: If the database located not on the backed-up server, create the database backup file on the server which has automatic backup for the files or; create it locally and then transfer the file to backed-up server.
603	Database Auto-Backup Day	Set this system option for scheduling the automatic backup.
605	Database Auto-Backup Time	Set this system option for scheduling the automatic backup.
701	Server Port	Set this system option for enabling sending emails (orders, reports) through the system.
702	User Name	Set this system option for enabling sending emails (orders, reports) through the system.
703	User Password	Set this system option for enabling sending emails (orders, reports) through the system.
705	Mail Server	Set this system option for enabling sending emails (orders, reports) through the system.
707	Use SSL	Set this system option for enabling sending emails (orders, reports) through the system.
802	Auto-Purchase creation mode	This system option is important for creating automatic orders.

807	Auto PO Day	Set this system option for creating automatic orders, job **[DBName]AutoPOService**.
808	Auto PO Time	Set this system option for creating automatic orders, job **[DBName]AutoPOService**.
809	Default Site Key	This key will be used for automatic orders. Verify that this key points to the expected site.
900	Average usage calculation type	Set this value when initiating the database and before first Monthly Process starts to run.
901	MWA factor	Set this value when initiating the database and before first Monthly Process starts to run. This parameter must use sign for decimal value according to your regional settings. For example, for European settings use **coma** (,) and for US settings use **dot** (.).
902	Percent of Extreme lead time cases	Set this value when initiating the database and before first Monthly Process starts to run. This parameter must use sign for decimal value according to your regional settings. For example, for European settings use **coma** (,) and for US settings use **dot** (.).
903	Stock Management level	This system option is important for creating automatic orders.
904	Item from Reworked bin good as New	This system option is important to be set when initiating the database since it influences on the functionality of the system (stock calculation, Receive module).
905	Item from Used bin good as New	This system option is important to be set when initiating the database since it influences on the functionality of the system (stock calculation, Receive & Return modules).
1007	Login Time-out	Set this system option when initiating the database in order to give enough time for users until logout.
1012	Barcode Reader prefix	To enable use of the barcode reader, set this system option accordingly to the prefix of the device.

18 Managing users and authorizations

Defining groups of users helps to manage the authorization level of each user.

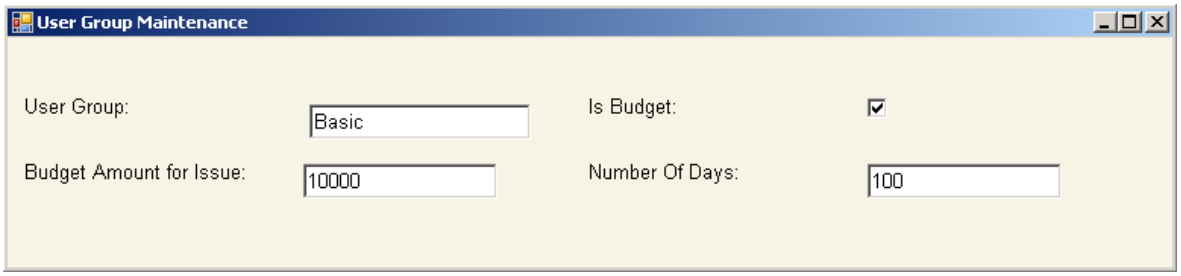
A large number of users can be connected up to one group or one user can be connected to a number of groups.

18.1 Group of Users

In order to define a new group, only the name of the group must be entered.

1. In the main menu go to "Menu: Administration → Users and Authorizations → User Groups".
2. Click the <Add> button on the Menu bar.

   The following screen will appear:



3. Fill in the fields for a new "User Group":

   User Group: User group name

   The following fields are relevant only in case you want to restrict issue for this user group (see also Chapter D: Budget by Amount (section 16.7.2)):

   Is Budget: Check the box if the group has a budget limitation for issuing

   Budget Amount for Issue: Fill in the budget limit amount. The amount currency is the System Currency (System Option 203).

   Number of Days: Fill in the number of days for the budget check.

4. Click the <Save> button on the Menu bar.

All the authorizations of the system are described in the authorization management (see Chapter D: Authorization Manager (section 18.3).
Connection of a user name to a group is done through the definition of users (see Chapter D: Users (section 18.2))

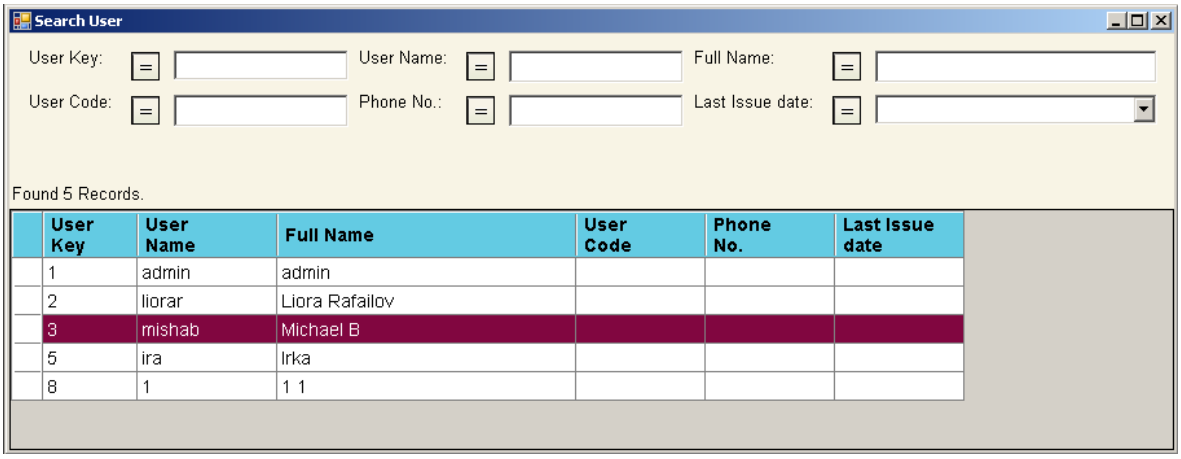
18.2 Users

Entering the system is done by a "User Name" and "Password".
In order to be able to enter the system, the system manager must define every user name and its password, and to which group it's connected. The user will get the authorizations from the group/s to which it is assigned.

Search User

Entering the user definition is done through the menu.

1. In the main menu go to "Menu: Administration → Users and Authorizations → Users".
2. Fill the parameters for search and click the  <Search> button on the Menu bar.
   The following screen will appear:

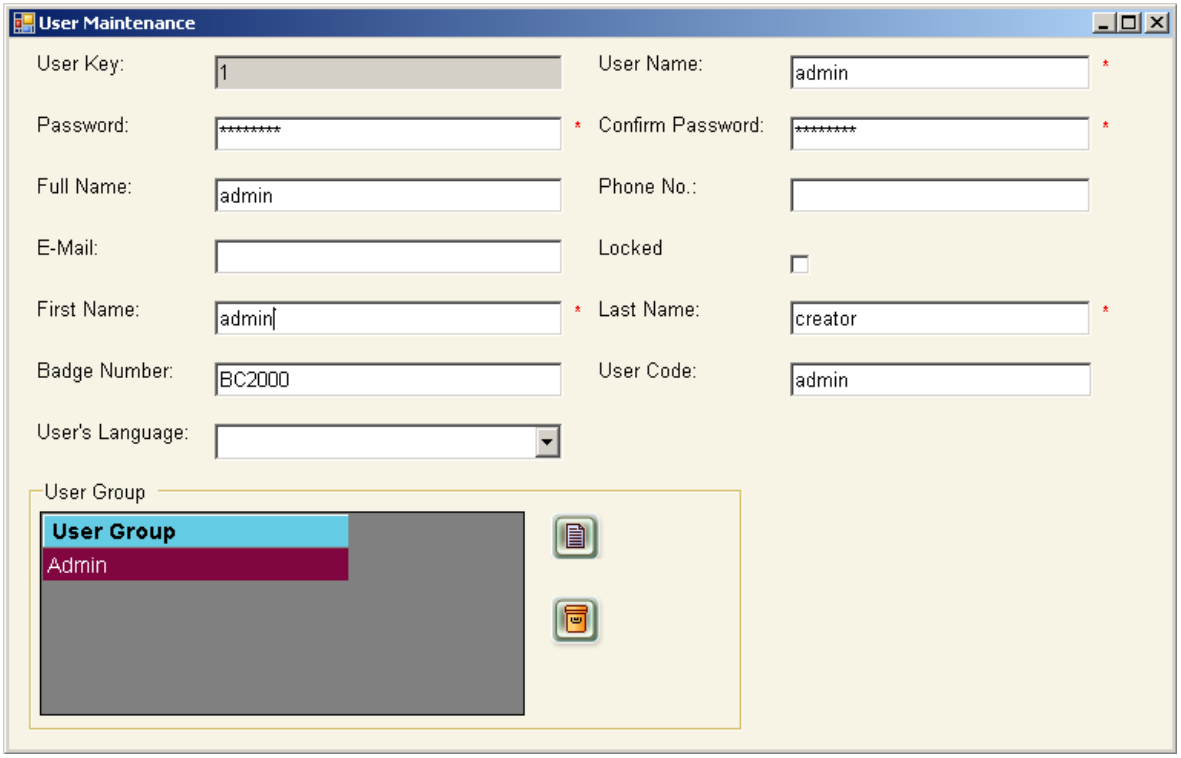


   Through this screen you have the ability to update / delete / add details of a user.

Add User

1. Click the  <Add> button through the permanent data record.

The following screen will appear (without frame on the bottom part):



2. Enter the user details:

Password:	Insert the password.
Confirm password:	Insert the same password.
Full Name:	Full name.
Phone No:	Phone No.
E-Mail:	Insert the email for receiving the scheduled reports and more.
Locked:	Check the box for locking the login to the system for the user.
First Name:	First Name
Last Name:	Last Name
Badge Number:	The barcode on the personal card in order to login to the Touch module by the barcode reader.
User Code:	The user code in order to login to the Touch module by the card reader.

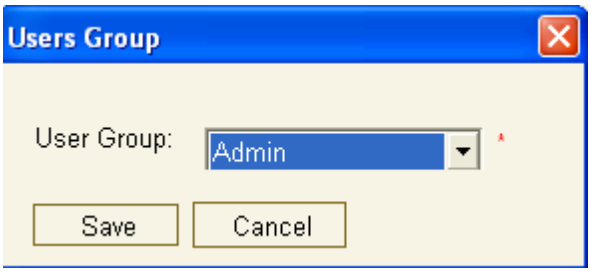
User's Language: The personal settings of interface language for Manage and Touch modules. If no value is selected, the default language will be taken from general setting.

Click the <Save> button on the Menu bar.

3. Assign user to group/groups: After saving, a frame will appear on the bottom of the window, with the possibility to connect the user to a "Group" or "Groups of Users".

   In order to add the user to a group, click the <Add> button inside the frame.

   The following screen will appear:



4. Choose the group required and click the <Save> button on the dialog screen.
5. Repeat the steps 3-4 to assign the user to other groups.
6. Click the <Save> button on the Menu bar.

18.3 Authorization Manager

The authorizations available in the system are defined per User Group.

The authorizations management is divided into two parts:

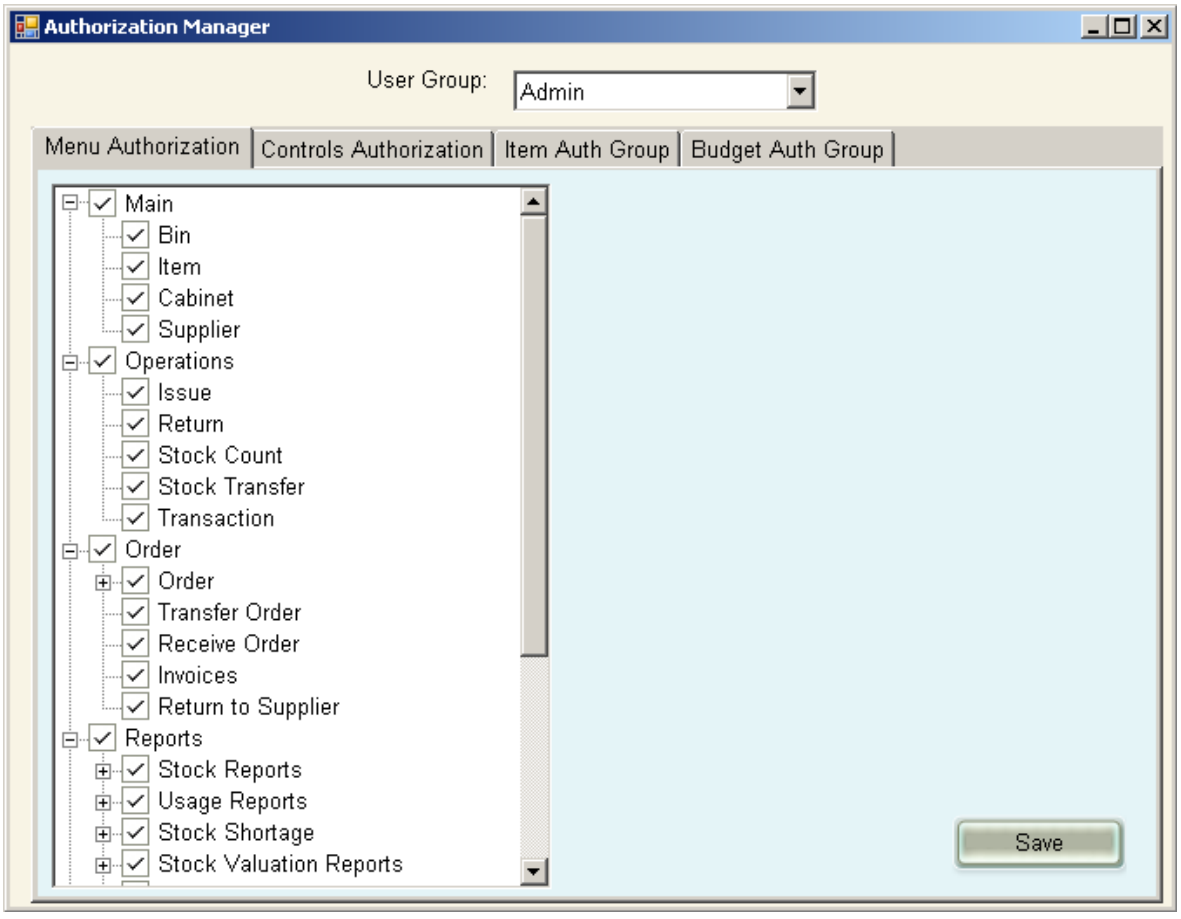
1. Menu Authorization – authorization to menus in Manage.
2. Controls Authorization – authorization to options in Touch and controls in Manage.

18.3.1 Menu Authorization

To set Menu authorizations in the Manage module:

1. Open "Menu: Administration → Users and Authorizations → Authorization Manager".
2. In the 'User Group' field select the group for which you want to set the authorizations.
3. Select "Menu Authorization" tab.

   In this tab you receive a list of all menus and sub-menus defined for the Manage.



4. Mark all the required menus with √ and click the  <Save> button.
   Login to the system as a User of this User Group to check the new settings.

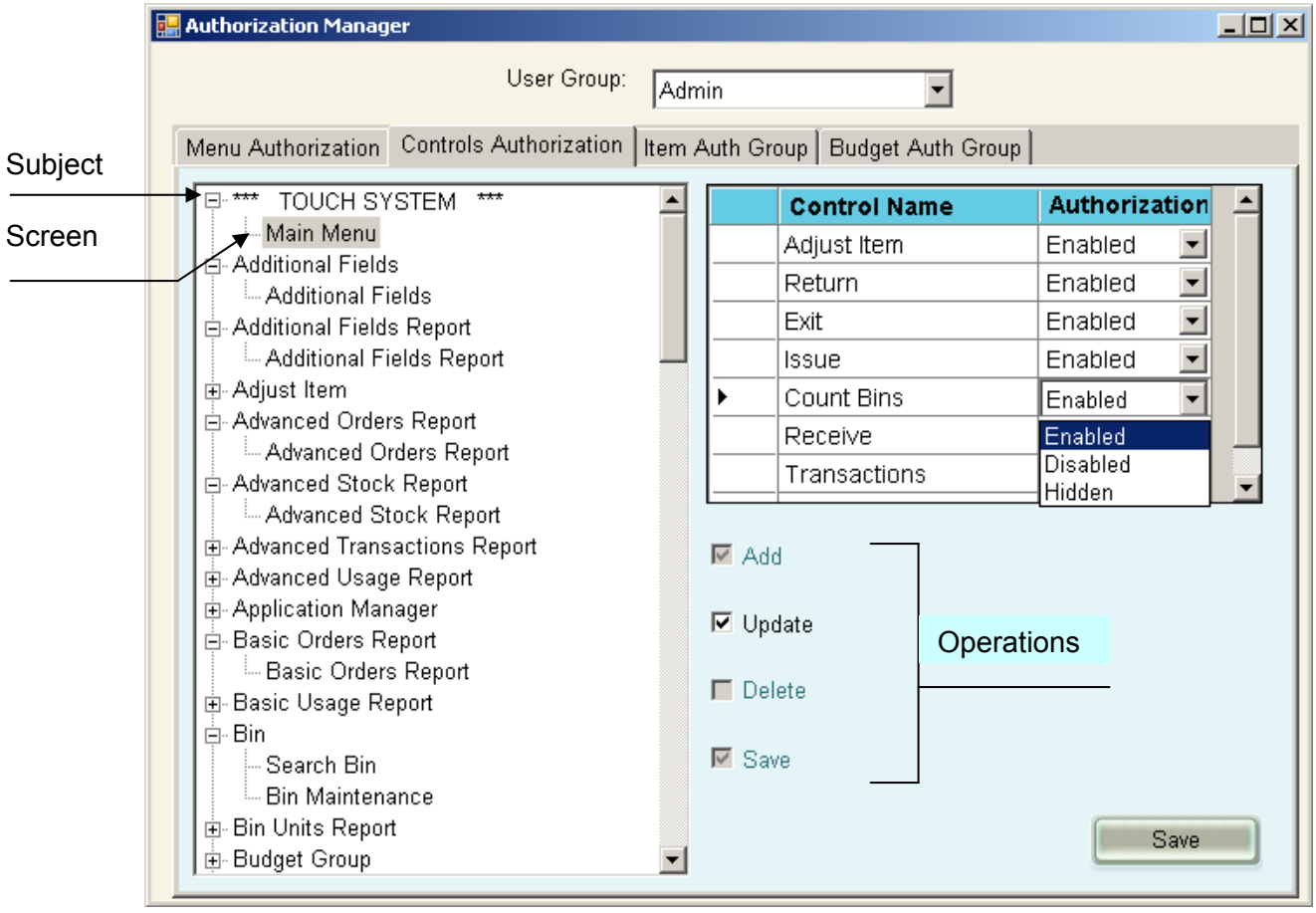


Note: You can give authorization to a full menu or specific sub-menus.
Giving authorization to a sub-menu will be allowed only if the group has authorization to enter the main menu.

18.3.2 Controls Authorization

To set Controls authorizations in Touch and Manage:

1. Open "Menu: Administration → Users and Authorizations → Authorization Manager".
2. In the 'User Group' field select the group for which you want to set the authorizations.
3. Select "Controls Authorization" tab.
   In this tab you receive a list of all the subjects in the system.
   Under each subject is a list of screens. Selecting a screen will display its controls and operations available for the screen.



4. Select a relevant screen from the list to display its controls on the grid and screen operations under the grid.
5. For every relevant control, there is a list of authorization options. Select one of them:

   Enabled – Allowed operation

   Disabled – Disallowed operation (will be colored in grey)

   Hidden – Hidden operation
6. Then mark the operations that should be available for the selected screen with a √.

   For example, if none of the operations are marked, then the selected screen will be 'read only'. Note: some of the operations are not changeable (defined by the system as not changeable):

   Add Update Delete Save
7. Click the Save <Save> button to save the changes.

   Login to the system as a User of this User Group and check the changes done.

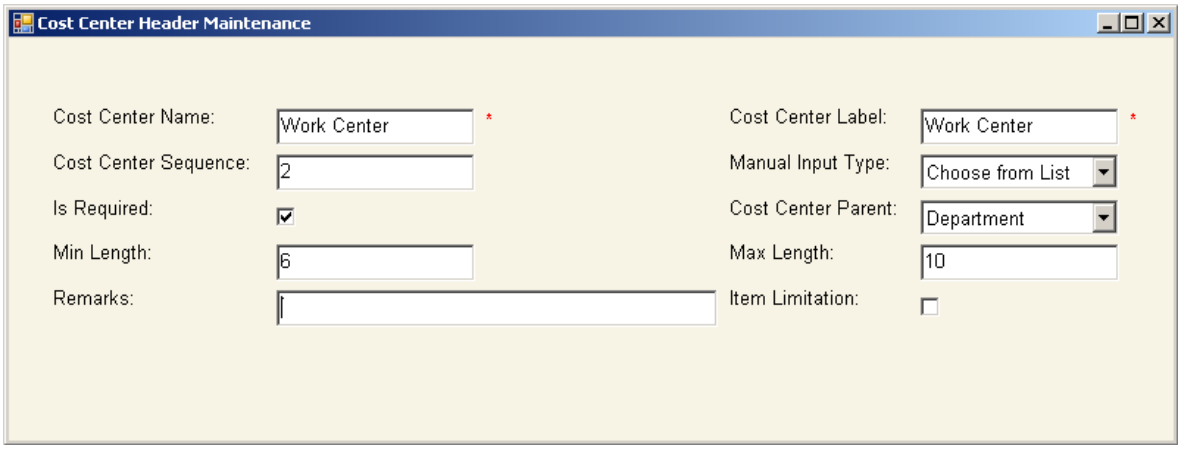
19 Define Cost Centers

Defining the cost centers and its details is done from the menu "Administration".

19.1 Add Cost Center Header

Here you can Add / Update / Delete the Cost Center Header that appears in the system.

1. Go to "Menu: Administration → Cost Center Header".
2. Click the <Add> button and the following screen will appear:



Fields description:

Cost Center Name: Cost center name.

Cost Center Label: Cost center label.

Cost Center Sequence: The location of this header in the hierarchy of all the cost center headers. The software supports displaying up to four cost center headers.

Manual Input Type: Four options are available:

Choose from List – User will select cost center from a list. To see a list, add the cost center details to the header.

Numeric Keyboard – User will input value manually inserting only numerical characters. In Touch, a virtual numerical keyboard will be displayed.

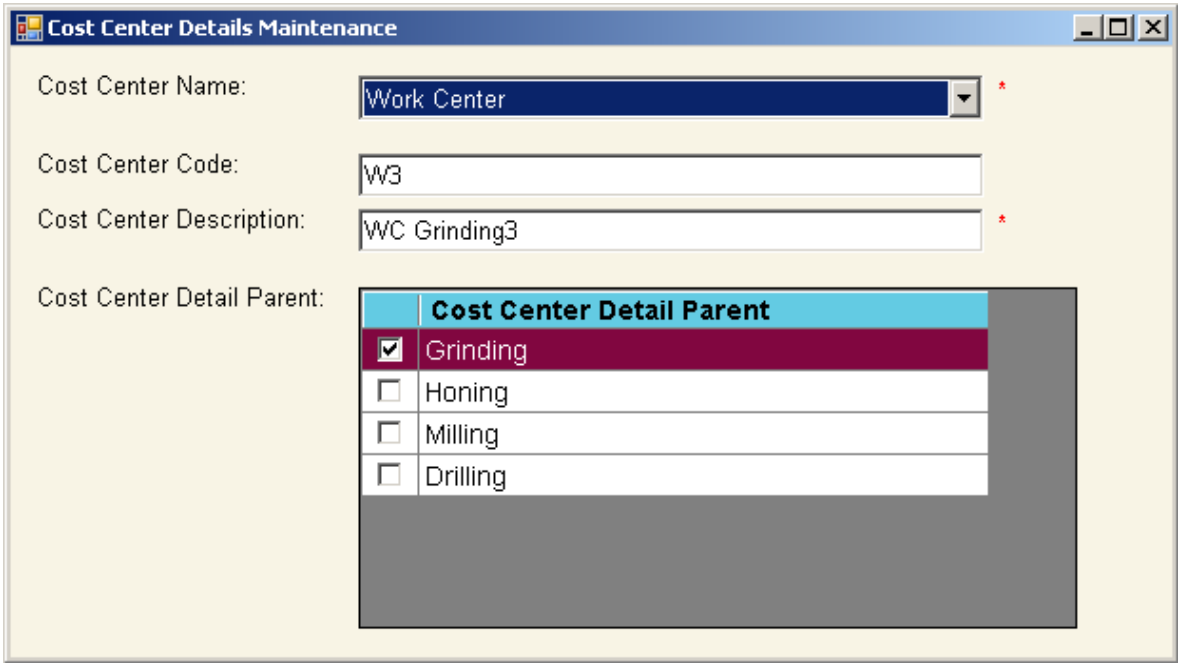
	Alpha-Numeric Keyboard – User will input value manually by inserting any character. In Touch, a virtual alpha-numerical keyboard will be displayed. BarCode - User will input value using barcode reader only. In Touch, no virtual alpha-numerical keyboard will be displayed.
Is Required:	If marked, user will have to insert value for the cost center header. Otherwise, he will not be able to continue the operation.
Cost Center Parent:	Cost center header from which the current header inherits cost centers.
Min Length:	Minimal length for input value. Not relevant for list type.
Max Length:	Maximal length for input value. Not relevant for list type.
Item Limitation:	If marked, the items for issue in Touch module will be filtered according to selected cost center. For more details see Chapter D: Define Items per Cost Center (section 19.3).
Remarks:	Free text.

3. Fill in the data and click the  <Save> button on the Menu Bar.

19.2 Add Cost Center Detail

Here you can Add / Update / Delete the Cost Center Details connected to the header, and maintain the definitions of the cost center lines.

1. Go to "Menu: Administration → Cost Center Details".
2. Click the  <Add> button and the following screen will appear:



Fields description:

Cost Center Name: A list with all the cost center headers defined.

Cost Center Code: Cost center code.

Cost Center Description: Cost center description.

Cost Center Detail Parent: Displays in the grid a list of cost centers of the parent cost center. Marking cost centers here will link them to the parent cost center.

3. In the 'Cost Center Name' field select the header for which you wish to add cost centers, insert the data for the 'Cost Center Code' and 'Cost Center Description' and click the <Save> button.
   This will create a grid of Cost Center Detail Parent.

4. In the 'Cost Center Detail Parent' mark the parent cost centers to which this cost center is linked and click again the <Save> button.
   For example: If a work center has a number of machines, and if machine 10 is under cost center C1 and cost center C2, then in the machine detail the parent cost centers would be C1 and C2.

19.3 Define Items per Cost Center

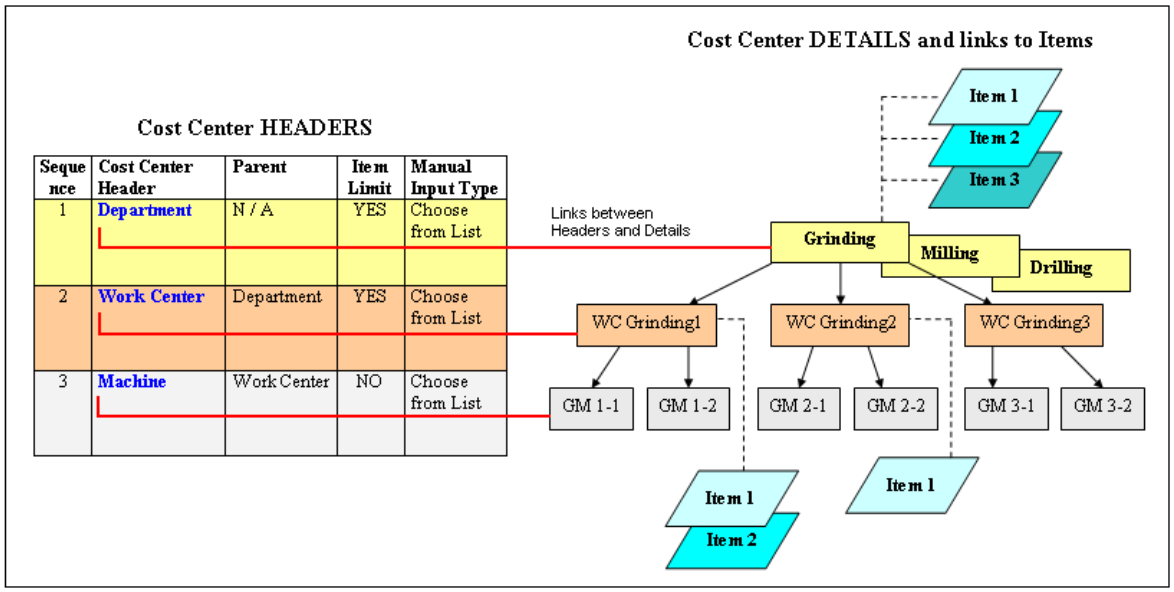
You can define a list of items that will be available for Issue according to the selected cost center in Touch application in Issue module. This will require defining the links between cost centers and items. This will not have effect on the Issue in the Manage application.

There are two ways to make these definitions which are described in the following paragraphs:

Link cost centers to ITEM - For each item to link the cost centers that will use this item.

Link items to COST CENTER – For each cost center to link the items that should be available.

The image below shows, as example, structure of headers and cost centers and the item linked to them.



Important notes before creating the links:

- The definition if to limit items for issue is made on the COST CENTER **HEADER** level.
- The items that will be available for issue are defined on the COST CENTER **DETAIL** level.

- List of items available for issue can be linked only to cost centers that their header is of input type 'Choose from List'.
- When there is more than one cost center header of input type 'Choose from List' and they are item limited (Item Limit = YES) ….

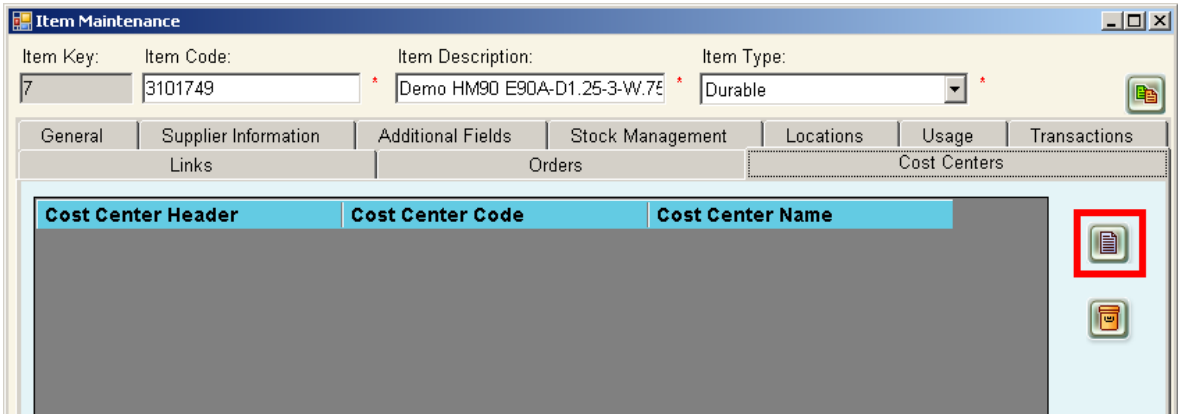
  If the second header hierarchies cost centers from its parent (like in the example, Work Center is related to its parent Department), it is enough to link items to the cost centers of second header only (link Item **1** & Item **2** directly to cost center WC Grinding **1**).

  Otherwise, it will be required to link the items to the cost centers of both headers separately (link Item **1** & Item **2** & Item **3** to cost center Grinding and then also link Item **1** & Item **2** to cost center WC Grinding **1**).
- If under header which is defined to limit items (Item Limit = YES) there is a cost center that has no linked items, then selecting this cost center in Touch will display no items (like in example, cost center WC Grinding 3).

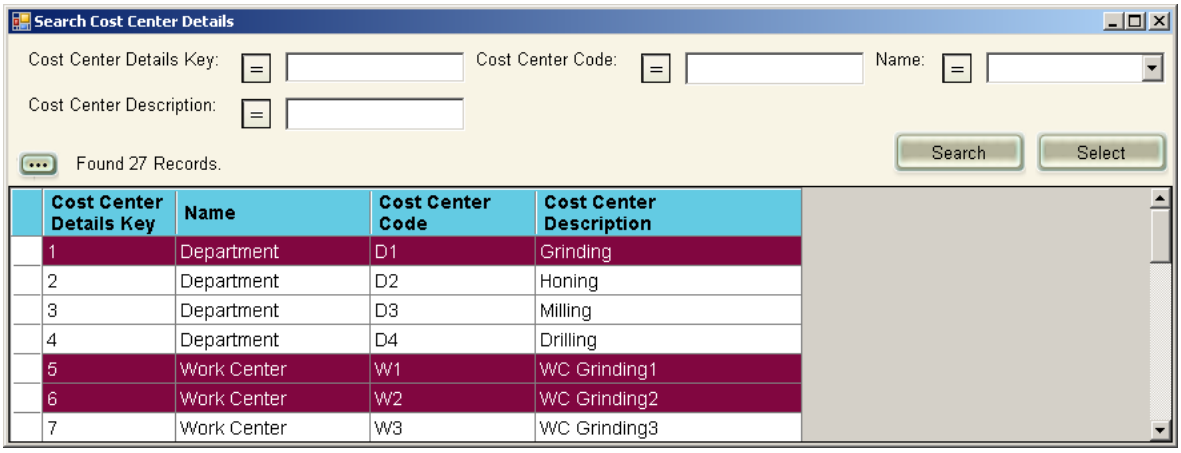
19.3.1 Link Cost Centers to ITEM

Described here the first and recommended option for making the required definitions.
This way the user will link cost centers to ITEM using 'Item Maintenance' screen.
Selecting these cost centers in Touch will display the item.
The instructions are based on the existing cost centers and items which are part of 'ITMDemo' database.

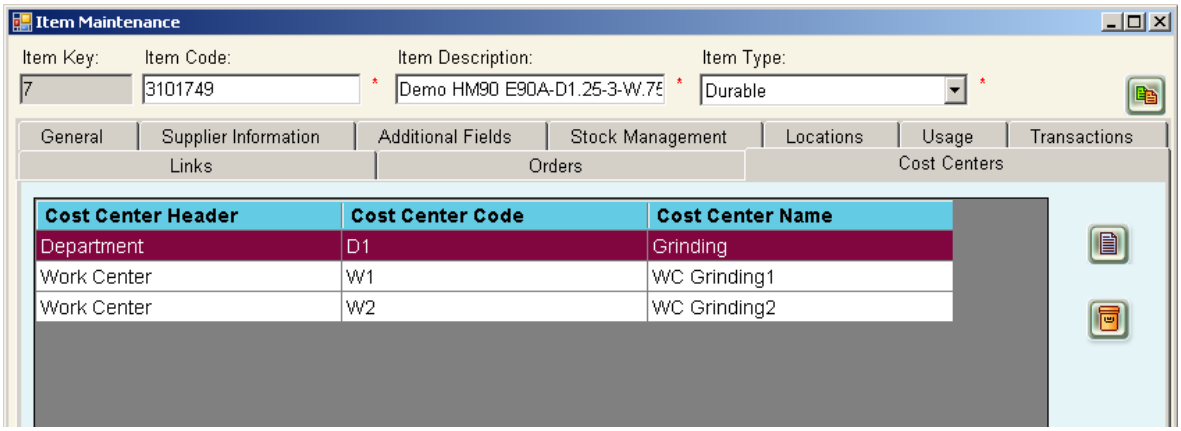
1. Select item to open its "Item Maintenance" screen and select 'Cost Centers' tab.



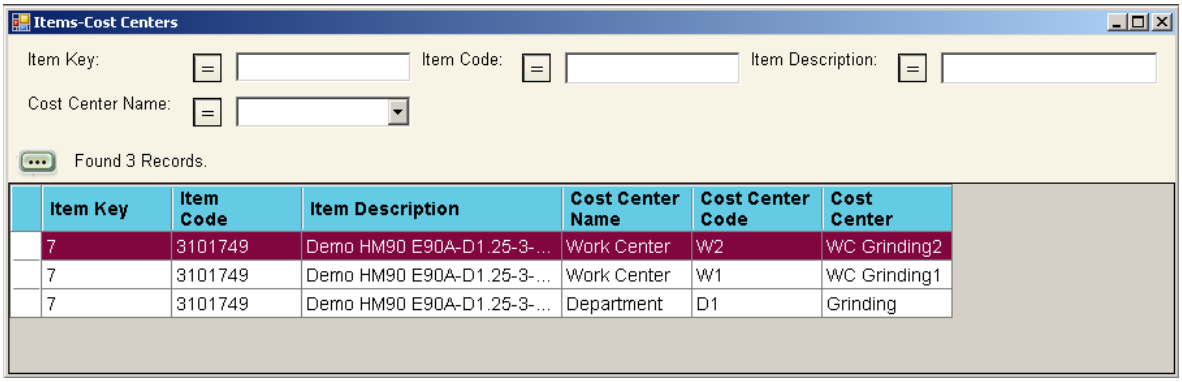
2. Click the  <Add> button on the right side of the grid. This will display the list of cost centers.


Search Cost Center Details
Cost Center Details Key:
Cost Center Code:
Name:
Cost Center Description:
Found 27 Records.
Search
Select
Cost Center Details Key | Name | Cost Center Code | Cost Center Description
1 | Department | D1 | Grinding
2 | Department | D2 | Honing
3 | Department | D3 | Milling
4 | Department | D4 | Drilling
5 | Work Center | W1 | WC Grinding1
6 | Work Center | W2 | WC Grinding2
7 | Work Center | W3 | WC Grinding3

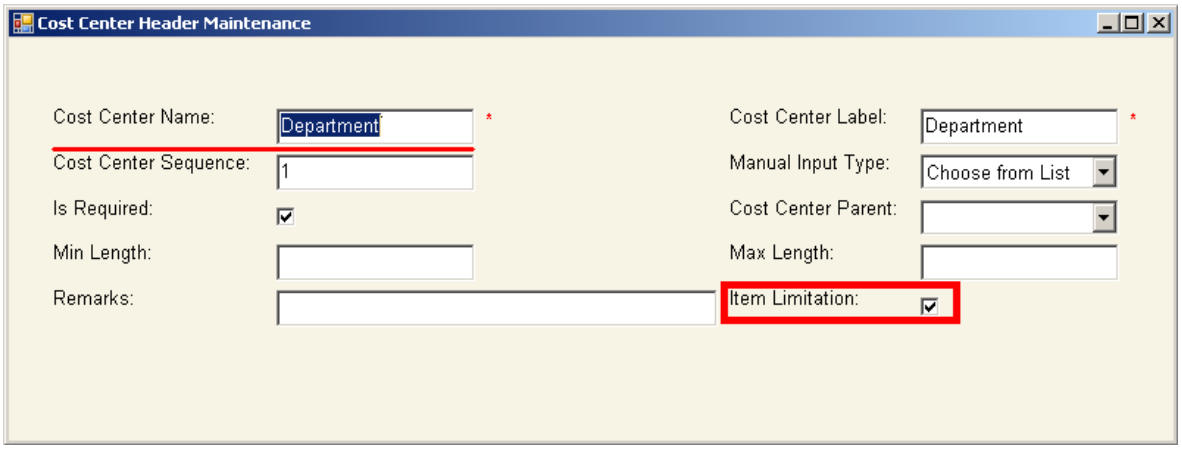
3. Select the cost centers for which this item should be available for issue and click the <Select> button. You can select multiple cost centers by holding the CTRL key and selecting the records.

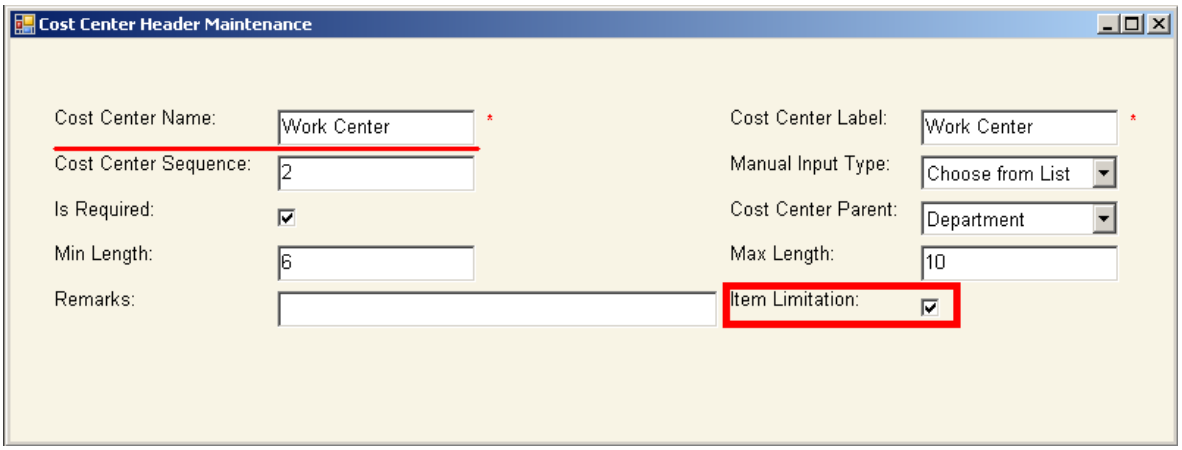


4. Click the  <Save> button on the main toolbar.
5. Open the report that displays the linked item to cost centers by "Menu: Reports → Items → Items-Cost Centers". The screen will display results as following:


Items-Cost Centers
Item Key:
Item Code:
Item Description:
Cost Center Name:
Found 3 Records.
Item Key | Item Code | Item Description | Cost Center Name | Cost Center Code | Cost Center
7 | 3101749 | Demo HM90 E90A-D1.25-3-... | Work Center | W2 | WC Grinding2
7 | 3101749 | Demo HM90 E90A-D1.25-3-... | Work Center | W1 | WC Grinding1
7 | 3101749 | Demo HM90 E90A-D1.25-3-... | Department | D1 | Grinding

6. Open the **cost center header** for which you want to limit item selection for issue, mark the 'Item Limitation' field and save.
   In the example here, open the 'Department' and 'Work Center' headers.

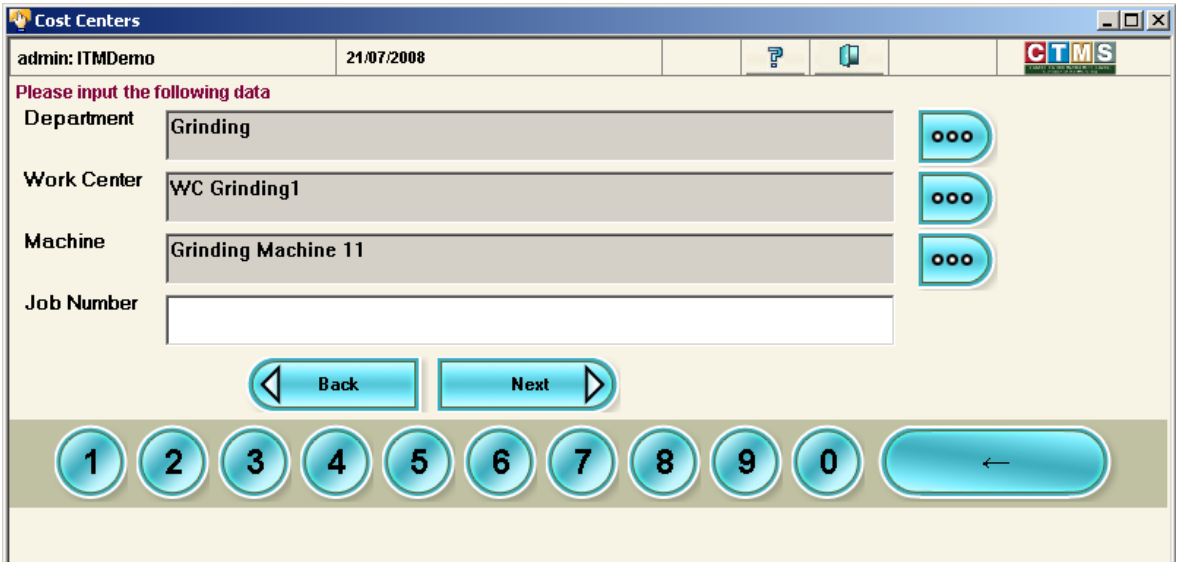




By this, the required definitions are completed.

Open Touch application and test the results in the **'Issue'** module:

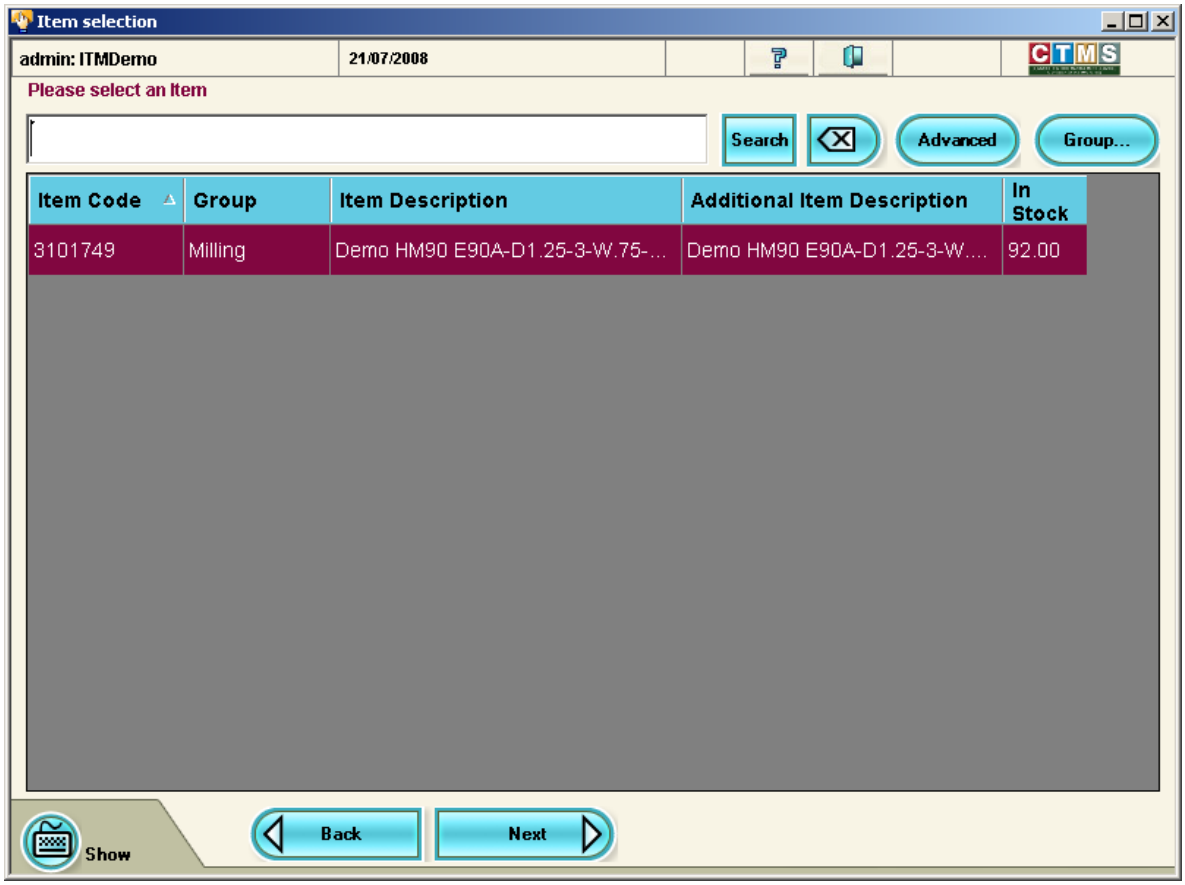
For the cost centers screen select the cost centers which you have defined for the item:



Department = Grinding

Work Center = WC Grinding 1 or WC Grinding 2

And continue…



The screen of the items will filter the list and will display only the item that was linked to the selected cost centers.

Note: If selecting, for example, cost center **WC Grinding 3**, there will be no items displayed for issue because this cost center was not linked to any item and its header **Work Center** was marked to limit items,

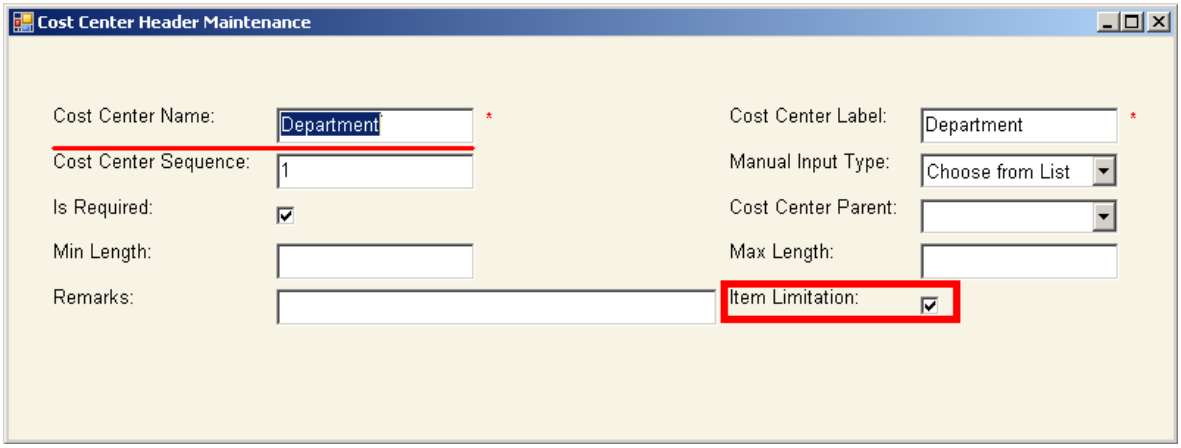
19.3.2 Link Items to COST CENTER

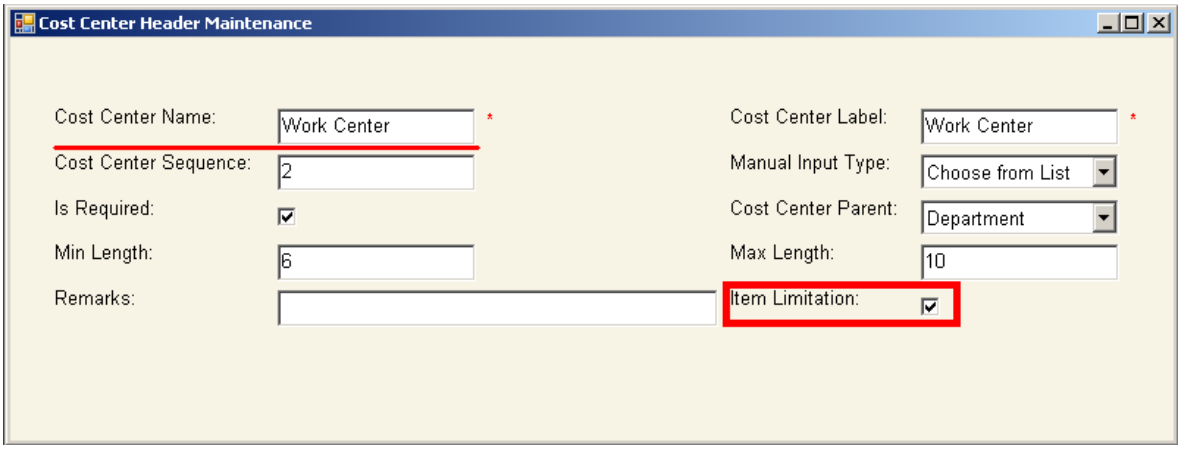
Described here is the second option for making the required definitions.

This way the user will link items to COST CENTER using 'Cost Center Detail Maintenance' screen. Selecting these cost centers in Touch will display the item.

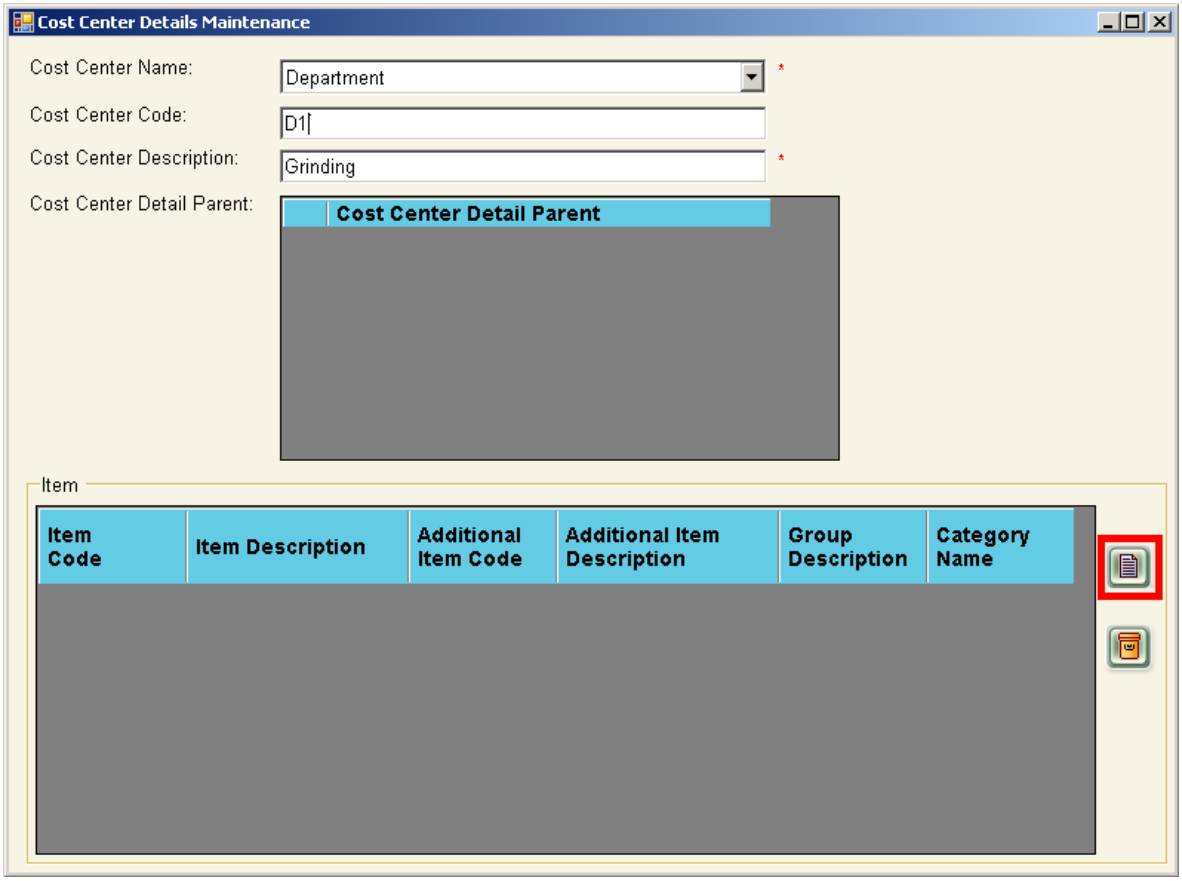
The instructions are based on the existing cost centers and items which are part of 'ITMDemo' database.

1. Open the **cost center header** for which you want to limit item selection for issue, mark the 'Item Limitation' field and save.
   In the example here, open the 'Department' and 'Work Center' headers.



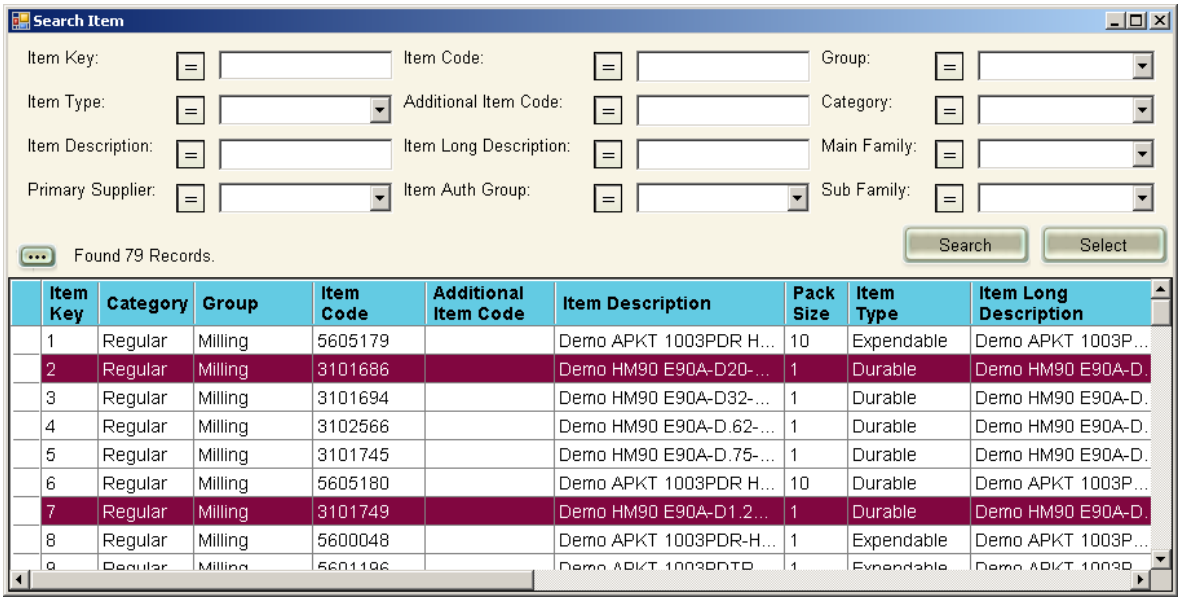


2. Open the **cost center detail** for which you want to links items that will be available for issue. Once you have marked in previous step the cost center header with 'Item Limitation', all the cost center details of this header will display additional grid on the bottom part of the screen for adding the items.

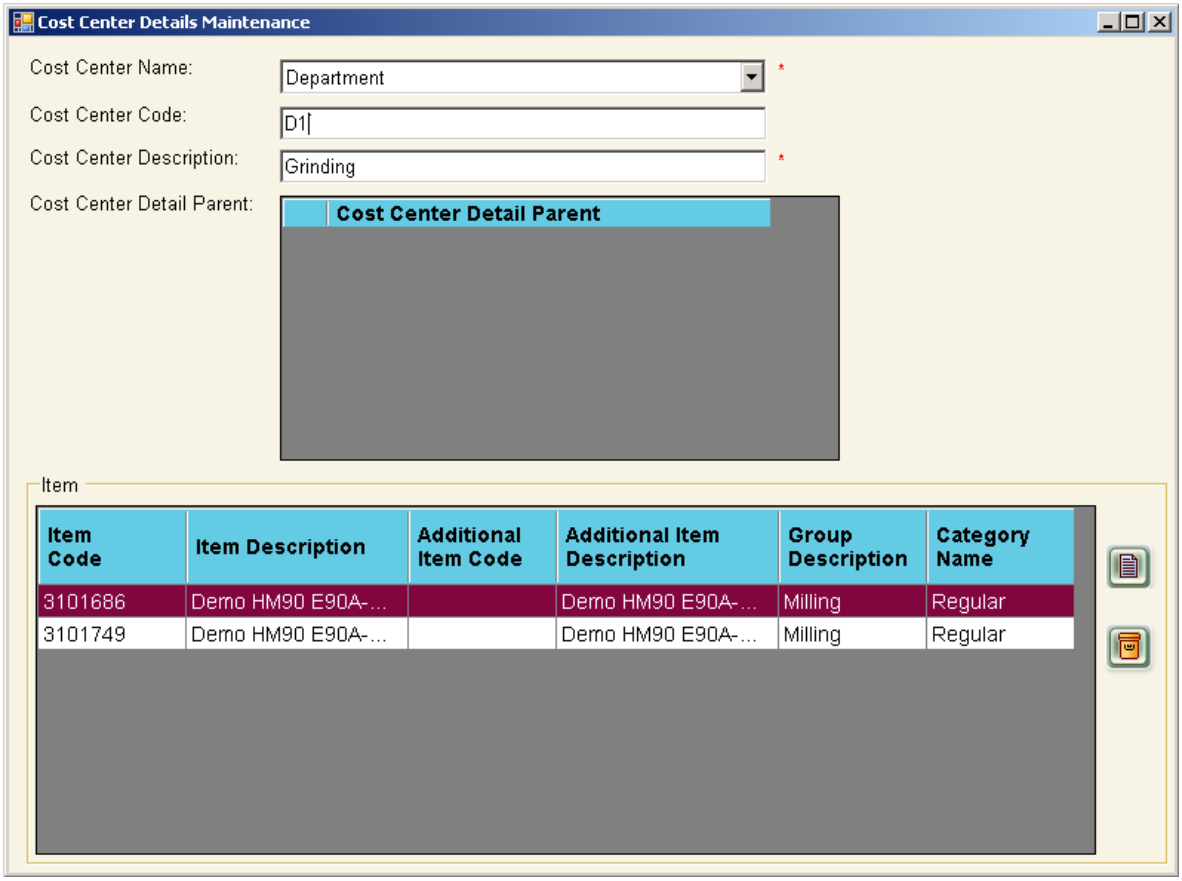


By this example, open the cost center Department = Grinding.

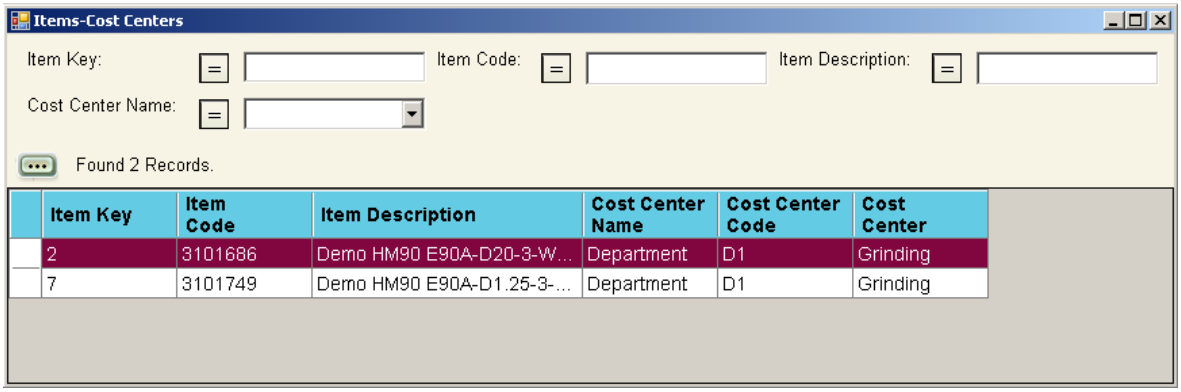
3. Click the  <Add> button on the right side of the grid. This will display the list of items.


Search Item
Item Key:
Item Code:
Group:
Item Type:
Additional Item Code:
Category:
Item Description:
Item Long Description:
Main Family:
Primary Supplier:
Item Auth Group:
Sub Family:
Found 79 Records.
Search
Select
Item Key
Category
Group
Item Code
Additional Item Code
Item Description
Pack Size
Item Type
Item Long Description
1 Regular Milling 5605179 Demo APKT 1003PDR H... 10 Expendable Demo APKT 1003P...
2 Regular Milling 3101686 Demo HM90 E90A-D20-... 1 Durable Demo HM90 E90A-D.
3 Regular Milling 3101694 Demo HM90 E90A-D32-... 1 Durable Demo HM90 E90A-D.
4 Regular Milling 3102566 Demo HM90 E90A-D.62-... 1 Durable Demo HM90 E90A-D.
5 Regular Milling 3101745 Demo HM90 E90A-D.75-... 1 Durable Demo HM90 E90A-D.
6 Regular Milling 5605180 Demo APKT 1003PDR H... 10 Durable Demo APKT 1003P...
7 Regular Milling 3101749 Demo HM90 E90A-D1.2... 1 Durable Demo HM90 E90A-D.
8 Regular Milling 5600048 Demo APKT 1003PDR-H... 1 Expendable Demo APKT 1003P...

4. Select the items that should be available for issue for this cost center and click the <Select> button. You can select multiple items by holding the CTRL key and selecting the records.



5. Click the <Save> button on the main toolbar.
6. Open the report that displays the linked item to cost centers by "Menu: Reports → Items → Items-Cost Centers". The screen will display results as following:

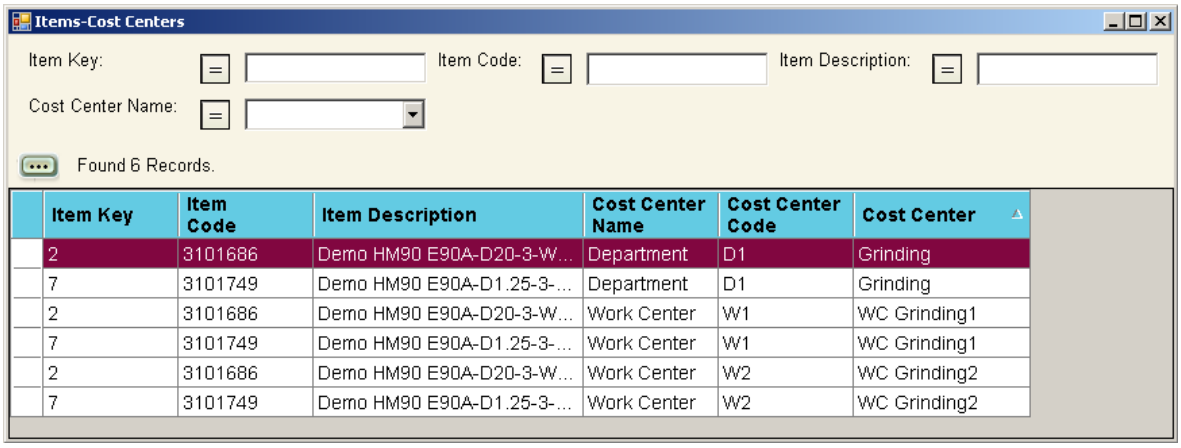


Item Key	Item Code	Item Description	Cost Center Name	Cost Center Code	Cost Center
2	3101686	Demo HM90 E90A-D20-3-W...	Department	D1	Grinding
7	3101749	Demo HM90 E90A-D1.25-3-...	Department	D1	Grinding

These two items will be available for cost center Department = Grinding.

7. Repeat the steps 2-5 and select the same two items for cost centers:
   Work Center = WC Grinding 1
   Work Center = WC Grinding 2

8. Repeat the step 6 for displaying the report. The screen will display results as following:



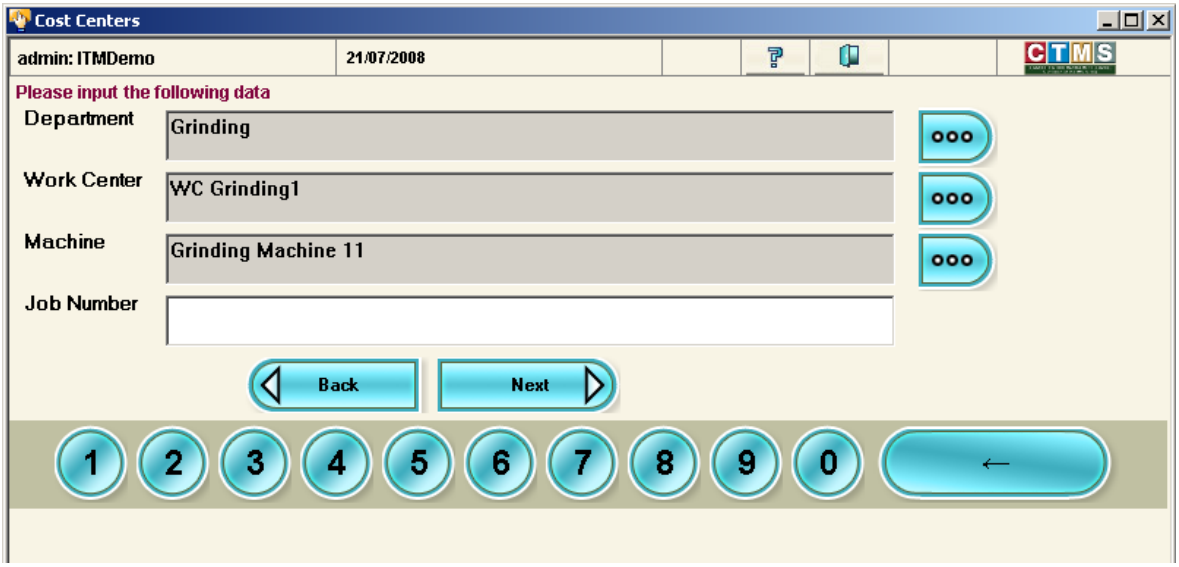
Item Key	Item Code	Item Description	Cost Center Name	Cost Center Code	Cost Center
2	3101686	Demo HM90 E90A-D20-3-W...	Department	D1	Grinding
7	3101749	Demo HM90 E90A-D1.25-3-...	Department	D1	Grinding
2	3101686	Demo HM90 E90A-D20-3-W...	Work Center	W1	WC Grinding1
7	3101749	Demo HM90 E90A-D1.25-3-...	Work Center	W1	WC Grinding1
2	3101686	Demo HM90 E90A-D20-3-W...	Work Center	W2	WC Grinding2
7	3101749	Demo HM90 E90A-D1.25-3-...	Work Center	W2	WC Grinding2

These two items will be available for cost center Department = Grinding and for its two sub-cost centers Work Center = WC Grinding 1 and WC Grinding 2.

By this, the required definitions are completed.

Open Touch application and test the results in the **'Issue'** module:

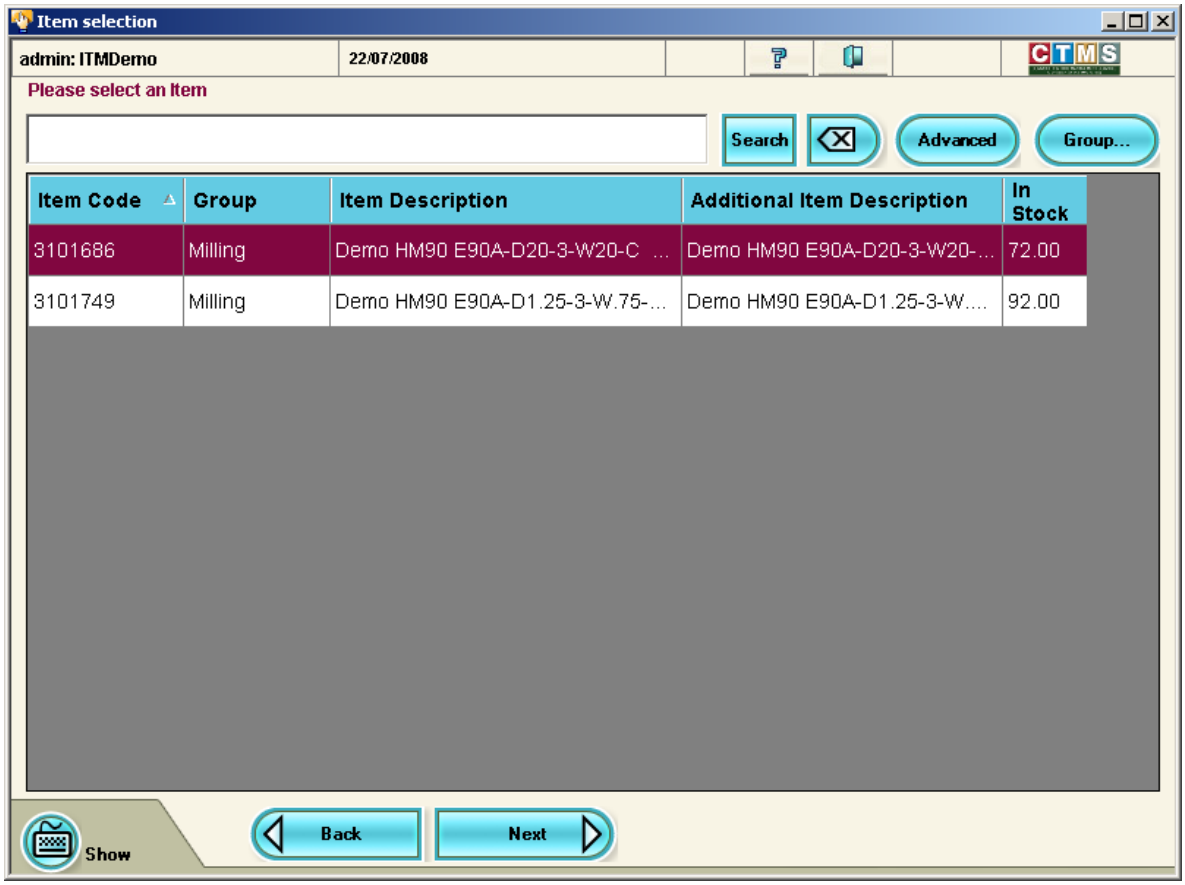
For the cost centers screen select the cost centers for which you have defined the items:



Department = Grinding

Work Center = WC Grinding 1 or WC Grinding 2

And continue…



The screen of the items will filter the list and will display only the two items that were linked to the selected cost centers.

Note: If selecting, for example, cost center **WC Grinding 3**, there will be no items displayed for issue because this cost center was not linked to any item and its header **Work Center** was marked to limit items,

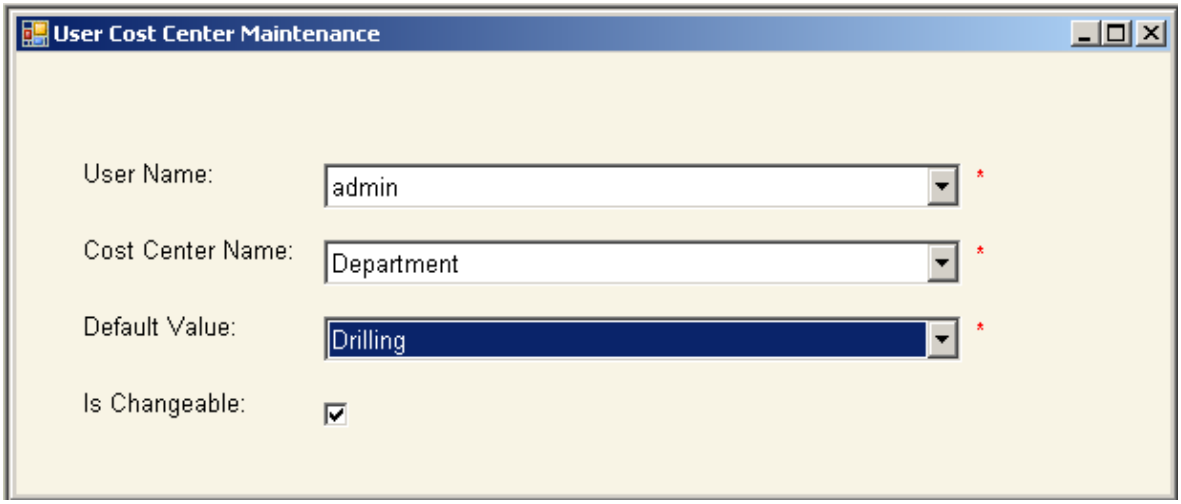
20 User cost centers

This option defines default cost centers per User.

When the User goes to issue items, the cost centers assigned to this User will be displayed.

This can save time and prevent mistakes. The User is allowed to change the default cost centers, if authorized to do so.

1. Go to "Menu: Administration → Users and Authorizations → User Cost Centers".



Fields description:

User Name:	Lists all the users defined in the system.
Cost Center Name:	Cost center headers defined in the system.
Default Value:	List of cost centers belonging to the selected 'Cost Center Name'.
Is Changeable:	Authorizes the user to modify the default cost center.

2. In the 'User Name' field select the user for whom you wish to define the cost centers. Then select the 'Cost Center Name' and the default cost center in the 'Default Value' field. .
   Finally Mark 'Is Changeable' field √ if the User is authorized to modify the default cost centers.
3. Click the <Save> button.
4. Repeat the same steps for each Cost Center Name.

21 Manual Processes

21.1 Monthly Process

The main purpose of the monthly process is to calculate the Minimum and Maximum factors of the different stock levels (Bin, Item-cabinet, Item) for the system's statistics and for automatic reordering of the items. In order to be able to calculate the Minimum and Maximum factors the following parameters are first being calculated:

- Average Lead Time
- Average Usage
- Frequency and Frequency Levels
- Min and Max levels

Before running the Monthly Process, the system will check the **Last month** that was fully processed (described in system option **303** in MMYY format) and the **Current month** (by the PC time). If the [Last month] is the month before the [Current month], the process will stop notifying that the Monthly Process was already completed for this period. See the following example.

Example: If now it is September 2007 and system option 303 is set to 0807 (meaning August 2007), then the process will not run at this month anymore. In order to recalculate the months July 2007 and August 2007, set the system option to 0607 (June 2007).

Average Lead Time:

This step calculates minimum and maximum lead times for each Item-Supplier according to the order lines which were supplied during a defined period of time. Using the results, the system calculates the Average Lead Time which will be used in the next steps of the Monthly Process. If no order lines exist, the system pulls the defaults.

The step uses system options: 300, 301, 902.

Average Monthly Usage:

This step calculates average monthly usage for each item based on the Issue transactions. The calculation has two options:

MWA – Moving Weighted Average

Flat – Arithmetic Average

The system options which affect the average usage calculations are: 301, 900, and 901.

Average Frequency and **Frequency Class:**

Calculated from the Issue transactions frequency. According to the Issue transaction occurrence, the system calculates the classes of frequency. **A** is the most frequent bin, cabinet or item, **B** is less and so on.

The Frequency levels are calculated according to the following table:

Frequency Class	Minimum Frequency	Maximum Frequency
A	20	100000
B	10	20
C	5	10
D	2.5	5
E	0.5	2.5
Z	0	0.5
N	-2	-1

Minimum Quantity and **Maximum Quantity:**

Calculated according to the Min and Max Factors which are retrieved according to the Average Lead Time and the Frequency Classes (calculated before).

The Min and Max factors are multiplied by the Average Usage to obtain Min and Max levels in quantity. Those Min and Max levels are stored in the Bin, Item-Cabinet and Cabinet levels.

The monthly process will update the last monthly process system option number 303.

The process can be run through the automatic scheduler or through the menu option.

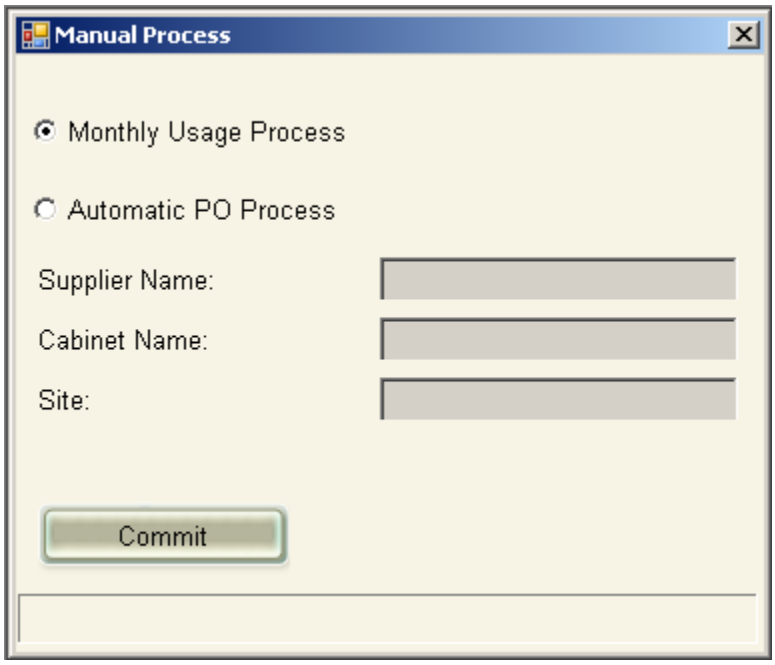
Remember! - If you run the process manually, the last monthly process cannot be last month, since in this case nothing will happen. In order to run last month you need to

change it to one month before. After changing any system option you need to exit the system to activate the change.

This is a list of the system options which affect the Monthly Process.

Option Key	Option Name	Option Description
300	Default Lead Time	The default value for the Lead Time of Item Supplier and also for the Monthly Lead Time calculation.
301	Number of months for Average calculations	How many months to use for calculating the Average Usage, Frequency and Lead time during monthly process.
303	Last Monthly Process	Last month (in format MMYY) that was fully processed and updated automatically by the Monthly Process.
304	End of Month Day	What day to run the Monthly Process (end of month process).
305	End of Month Time	What time to run the Monthly Process (end of month process).
900	Average usage calculation type	Average Usage can be an arithmetic average (FLAT) or a Moving Weighted Average (MWA).
901	MWA factor	The factor used to make the weighting of the MWA average. Please use values in range of 0 - 1.
902	Percent of Extreme lead time cases	The percentage of extreme cases (between 0 - 0.99) when the lead time was very short or too long. The Monthly Process will ignore them when calculating the average lead time.

It is recommended to make the "End of Month" process a scheduled process to run at the beginning of the new month. You can schedule this task through the task scheduler.
You can also run this option manually through the menus:
"Menu: Administration → Manual Process", choose the Monthly Usage Process and click <Commit>.


Manual Process
Monthly Usage Process
Automatic PO Process
Supplier Name:
Cabinet Name:
Site:
Commit

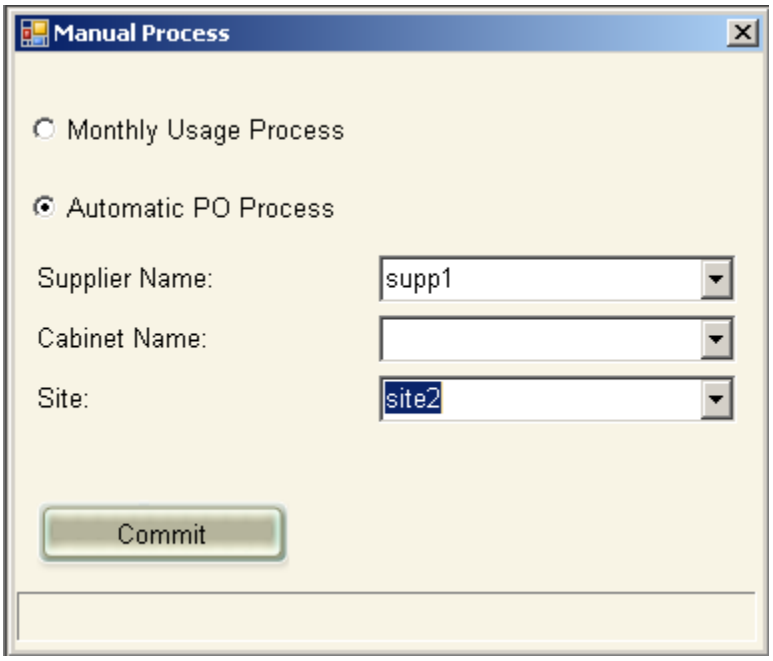
21.2 Automatic PO Process

This process scans the system and locates stock shortages. Once a stock shortage has been found, the system will create an automatic order to fulfill the need. In general the system is looking at the current stock in the selected stock level and comparing it to the minimum stock level parameter. If the stock is less than the minimum stock level, an order will be created to bring the stock up to the maximum stock level.

The order which is created can be assigned to a certain Bin, an Item-Cabinet or an Item. The decision as to which stock level will apply to replenish is defined in the bin (Bin stock management), in the Cabinet and also in the Item. The system also looks at system option 903 (see explanation below). The orders which are created can be active orders or draft orders. See system option no 802 for a detailed explanation.
It is recommended to make the automatic PO process a scheduled process to run daily or weekly. You can schedule this task through the task scheduler.

You can also run this option manually through the menus:

1. Go to "Menu: Administration → Manual Process"
2. Select the "Automatic PO Process" option
3. If you want to create orders only for a specific Supplier / Cabinet / Site, select the values from the lists. Otherwise, if you do not choose any of the values, the automatic process will create orders for all the suppliers, cabinets and sites by its stock shortage details.
   Please notice that orders will be split for every supplier and every site.
4. Click the <Commit> button to send the order.



Following you can find the system options which are related to the automatic PO process.

Option	Option Name	Option Description
802	Auto-purchase	How to run auto purchase, 0=No run, 1= Create purchase Draft, 2= Create purchase Orders, 3=Create purchase Orders and Send to supplier
807	Auto PO Day	What day to generate the automatic PO.
808	Auto PO Time	What time to generate the automatic PO
903	Stock Management level	Stock manage level used for the automatic order calculation. 1 = BIN level ordering. 2 = ITEM-CABINET level ordering. 3 = ITEM level ordering. 4 = Combination of all levels ordering.

22 Import Data

The "Import Data" module enables administrator users to import data located in an external file into the database of the MATRIX-TM software. In this way the user does not have to add data records manually through the Manage module, and an entire data table can be loaded automatically. After importing the records, the user can manage (update, delete) them through the application in the same way as if they had been added manually.



Important! Through this module, data is manipulated massively. It is recommended that you use it only after you fully understand how Import Data works.

Two types of files can be used for import: Text file (*.txt) or MS-Excel file (*.xls):
Chapter D: Tables for Import (section 22.1) and the Chapter D: Tips for Preparing Input Data (section 22.2) describe the tables that can be used for importing data, the accepted formats for each field and tips for editing the data. Use these chapters in preparing the import data file to ensure successful import.

Excel file (*.xls) (recommended option)

1. Add one or more sheets using one sheet per one data tables.
2. Use the top row for describing the column names (optional).
3. Edit the data according to the expected data format.

Text file (*.txt)

1. Create text file for only one data table.
2. Use the top row for describing the column names (optional).
3. Edit the data according to the expected data format.
4. Use one of the separators (',', ';', '|' or **TAB**) to separate between the columns.

22.1 Tables for Import

This section describes the tables that can be used for importing data into the database, detailing the fields for each table and the accepted input format. Follow this section for creating appropriate input data and use the tips described in Chapter D: Tips for Preparing Input Data (section 22.2).

Note: When using Excel, you can add more that one sheet to the file, but import the data from each sheet separately.

Important! Some of the tables can be imported independently and import of some tables will be based on the prior import of other tables. The order of tables for import indicated here is the recommended order for import into your database.

22.1.1 Import Users

This section describes Import of **Users** by table **USER_PROFILES**.

This table can be imported independently, however it is recommended to manually add the User Groups (as described in Chapter D: Group of Users (section 18.1)) in order to enable the import of User Group definition as well (see in table GROUP_NAME field).

Field Name	Field in the User Interface	Input Format
USER_NAME (Required, Unique)	User Name	Free text up to **10** characters
USER_PASSWORD defined as PASSWORD (Required)	Password	Free text up to **50** characters
USER_CAPTION defined as FULL_NAME (Required)	Full Name	Free text up to **40** characters
STR_FIRST_NAME defined as FIRST_NAME (Required)	First Name	Free text up to **20** characters
STR_LAST_NAME defined as LAST_NAME (Required)	Last Name	Free text up to **20** characters
GROUP_NAME (Required, Unique)	User Group	**User Group** as appears in the 'User Group Maintenance' screen
PHONE_NUMBER	Phone No.	Free text up to **50** characters

EMAIL	E-Mail	Free text up to **500** characters
USER_LOCKED	Locked	0 (Not locked) or 1 (Locked)
BADGE_NUMBER	Badge Number	Free text up to **50** characters
USER_CODE	User Code	Free text up to **50** characters
INT_LANGUAGE_KEY	User's Language	Short format, like in Texts (for example: en-US, de)
USER_NUMBER	These fields are not in the interface and not recommended for import.	
STR_PERSON_ID		
INT_DENY_DELETE		
USER_CREATED		
USER_LAST_MODIFIED		
DATE_LAST_ISSUE		
DATE_PASSWORD_EXPIRED		
DATE_LOCKED		
DATE_CREATED		
DATE_LAST_MODIFIED		

Example for Excel format:

USER_NAME	PASSWORD	FULL_NAME	FIRST_NAME	LAST_NAME	GROUP_NAME
GrantH	1245	Grant Hackett	Grant	Hackett	Admin
IanT	2535	Ian Thorpe	Ian	Thorpe	Admin
GeorgeB	2323	George Bush	George	Bush	Basic
HillaryC	6565	Hillary Clinton	Hillary	Clinton	Basic
AndrewB	8565	Andrew Benson	Andrew	Benson	Basic
GregR	1204	Greg Reid	Greg	Reid	Basic
KobiB	1209	Kobi Bryant	Kobi	Bryant	Basic
JacobC	1112	Jacob Cohen	Jacob	Cohen	Basic

…continuation of the table

PHONE_NUMBER	EMAIL	BADGE_NUMBER	INT_LANGUAGE_KEY
(+1) 955-85-66	Grant@tooling.com	60050	en-US
(+1) 955-85-67	Ian@tooling.com	60051	en-US
(+1) 955-85-68	George@tooling.com	60052	de
(+1) 955-85-69	Hillary@tooling.com	60053	de
(+1) 955-85-70	Andrew@tooling.com	60054	hu
(+1) 955-85-71	Greg@tooling.com	60055	de
(+1) 955-85-72	Kobi@tooling.com	60056	ru
(+1) 955-85-73	Jacob@tooling.com	60057	he

Note: It is not necessary to rename the column names in Excel the same as in the example, but the format of the value must be equal (*Numeric*, *Text*, *Boolean* or *Date*).

22.1.2 Import Item Groups

This section describes Import of **Item Groups** by table **TVL_ITEM_GROUPS**.

This table can be imported independently.

Field Name	Field in the User Interface	Input Format
GROUP_CODE (Required, Unique)	Group Code	Free text up to **50** characters
GROUP_DESCRIPTION (Required)	Group Description	Free text up to **100** characters
DATE_CREATED	These fields are not in the interface and not recommended for import.	
USER_CREATED		
DATE_LAST_MODIFIED		
USER_LAST_MODIFIED		

Example for Excel format:

GROUP_CODE	GROUP_DESCRIPTION
01	Tooling
02	Milling
03	Drilling
04	Threading
05	ISO Turn

22.1.3 Import Suppliers

This section describes Import of **Suppliers** by table **ENT_SUPPLIER_MASTER**.

This table can be imported independently, but before this Units of Measure and Currencies must be added manually.

Field Name	Field in the User Interface	Input Format
SUPPLIER_CODE (Required, Unique)	Supplier Code	Free text up to **10** characters
SUPPLIER_NAME (Required)	Supplier Name	Free text up to **50** characters
CURRENCY_KEY (Required)	Currency	Currency key
SHIPPING_METHOD_KEY defined as SHIPPING_METHOD_NAME (Required)	Shipping Method	**Shipping Method Name** as appears in the 'Shipping Method Maintenance' screen
ADD_SUPPLIER_CODE	Additional Supplier Code	Free text up to **50** characters
SHIP_TO_ADDRESS1	Address – first line	Free text up to **45** characters
SHIP_TO_ADDRESS2	Address – second line	Free text up to **45** characters
SHIP_TO_ADDRESS3	Address – third line	Free text up to **45** characters
SHIP_TO_ADDRESS4	Address – fourth line	Free text up to **45** characters
SUPPLIER_PHONE	Phone No.	Free text up to **20** characters
SUPPLIER_FAX	Fax No.	Free text up to **20** characters
SUPPLIER_EMAIL	E-Mail	Free text up to **100** characters
HOME_PAGE	Home Page	Free text up to **200** characters
CONTACT_PERSON	Contact Person	Free text up to **50** characters
ORDER_METHOD_KEY	Order Method	Order Method by the next options: 2-Email 3-Print 4-No Sending
REMARKS	Remarks	Free text up to **500** characters
SEND_ERP	Send To ERP	0 (Not to send) or 1 (To send)
AUTO_PO_DAY	Schedule Day	Value from 1-13 by the order appears in the list
AUTO_PO_TIME	Schedule Time	Value from 1-24 by the order appears in the list
DATE_LAST_RUN	Date Last Updated	The field is not editable in the interface and not recommended for import
SCHEDULER_TYPE	Schedule Type	Value from 1-3 by the order appears in the list: 1-Specified 2-Default Schedule 3-Do not run
BILL_TO_ADDRESS1	These fields are not in the interface and not recommended for	

BILL_TO_ADDRESS2	import.
BILL_TO_ADDRESS3	
BILL_TO_ADDRESS4	
DATE_CREATED	
USER_CREATED	
DATE_LAST_MODIFIED	
USER_LAST_MODIFIED	

Example for Excel format:

SUPPLIER_CODE	SUPPLIER_NAME	CURRENCY_KEY	SHIPPING_METHOD_KEY	SEND_ERP	SHIP_TO_ADDRESS1	SHIP_TO_ADDRESS2
01	Iscar	0	DHL	0	Dizengof st. 34/5 TA	Israel
02	Outiltec	0	DHL	1	New York	USA
03	Ingersoll	0	EXPRESS	0	Hannover	Germany
04	TaeguTec	0	EXPRESS	1	Beijing	China

…continuation of the table

SUPPLIER_PHONE	SUPPLIER_EMAIL	HOME_PAGE	CONTACT_PERSON
+972 50 687 000 2	Iscar@support.com	www.Iscar.com	Jacob Cohen
+972 50 687 000 3	Outiltec@support.com	www.Outiltec.com	Peter Brosnan
+972 50 687 000 4	Ingersoll@support.com	www.Ingersoll.com	Chuck Elder
+972 50 687 000 5	TaeguTec@support.com	www.TaeguTec.com	Jackie Chang

22.1.4 Import Items and their Suppliers

This section describes Import of **Items** by table **ENT_ITEM_MASTER** and Import of **Items' suppliers** by table **ENT_ITEM_SUPPLIERS**.

These tables cannot be imported independently, See the note.

Note: In order to import items and their suppliers' definitions, the following tables must be first imported or added manually: Unit of Measure, Item Groups (can be imported as described before), Item Category, Suppliers (can be imported as described before).

Import **Items** by table ENT_ITEM_MASTER:
According to this table, Items should be added with no supplier definitions to the view "Menu: Main → Item →Search Item"

Field Name	Field in the User Interface	Input Format
ITEM_CODE defined as Item Code (Required, Unique)	Item Code	Free text up to **30** characters
ITEM_DESCRIPTION defined as Description (Required)	Item Description	Free text up to **50** characters
TYPE_KEY defined as TYPE_CODE (Required)	Item Type	One of the following values: **E**-Expendable **R**-Reworkable **D**-Durable **K**-Kit
GROUP_KEY defined as GROUP_CODE (Required)	Item Group	**Group Code** as appears in the 'Item Group Maintenance' screen
PACKET_SIZE (Required)	Pack Size	Numerical
UM_KEY defined as UNIT_OF_MEASURE_CODE (Required)	Unit of Measure	**Unit Measure Code** as appears in the 'Unit of Measure Maintenance' screen
DEFAULT_ISSUE_QTY (Required)	Default Issue Quantity	Numerical
CRC_KEY defined as CATEGORY_CODE (Required)	Category	**Category Code** as appears in the 'Item Category Maintenance' screen
SUPPLIER_KEY defined as SUPPLIER_CODE	Primary Supplier	**Supplier Code** as appears in the 'Supplier Maintenance' screen. Please notice that this field cannot be updated by import before importing Item

		Suppliers.
ADDITIONAL_ITEM_CODE	Additional Item Code	Free text up to **30** characters
ITEM_LONG_DESCRIPTION	Item Long Description	Free text up to **100** characters
ITEM_PRICE	Item Price	Numerical
UPC	Barcode	Free text up to **50** characters
IS_CALC_LEVEL	Item Management Level	0 (No) or 1 (Yes)
IS_CONSIGNMENT	Consignment	0 (No) or 1 (Yes)
REMARKS	Remarks	Free text
MAIN_FAMILY_KEY	Main Family	
SUB_FAMILY_KEY	Sub Family	
ITEM_AUTH_GROUP_KEY	Item Auth Group	**Item Authorizations Group Key** as appears in the 'Item Auth Group Maintenance' screen
ITEM_COST	Average Cost	Numerical (These fields are not editable in the interface)
REWORK_PRICE	Price of Reworked	Numerical
ITEM_WEIGHT	Item Weight	Numerical
USER_CREATED	These fields are not editable in the interface and not recommended for import.	
DATE_CREATED		
USER_LAST_MODIFIED		
DATE_LAST_MODIFIED		

Import **Items' suppliers** by ENT_ITEM_SUPPLIERS:
According to this table Supplier/s should be added to the 'Item Maintenance' screen on tab 'Supplier Information'.

Field Name	Field in the User Interface	Input Format
ITEM_KEY defined as Item Code (Required, Unique)	Item Code	Free text
SUPPLIER_KEY defined as SUPPLIER_CODE (Required, Unique)	Supplier Code on the 'Supplier Information' tab of the Item	**Supplier Code** as appears in the 'Supplier Maintenance' screen
SUPPLIER_PRICE (Required)	Supplier Price	Numerical
PACKAGE_SIZE (Required)	Pack Size	Numerical
UM_KEY defined as UNIT_OF_MEASURE_CODE (Required)	Unit of Measure	**Unit Measure Code** as appears in the 'Unit of Measure Maintenance' screen
SUPP_ITEM_CODE	Supplier Item Code	Free text up to **30** characters
SUPP_ITEM_DESCRIPTION	Supplier Item Description	Free text up to **100** characters
EXPIRATION_DATE	Expire Date	Date & Time
MIN_ORDER_QTY	Minimum Order Quantity	Numerical
SUPPLIER_DISCOUNT	% Discount	Numerical
REMARKS	Remarks	Free text
IS_COST_BREAK	Cost Breaks on the 'Supplier Information' tab	0 (No) or 1 (Yes)

	of the Item	
LEAD_AV_OVERRIDE	Lead Time Override on the sub-tab 'Usage Information'	Numerical
LEAD_AV_AD	Lead Average Effective Date	Date & Time
IS_AUTO_PURCHASE	These fields are not editable (or not visible) in the interface and not recommended for import.	
MIN_LEAD_TIME		
MAX_LEAD_TIME		
LEAD_AV		
USER_CREATED		
DATE_CREATED		
USER_LAST_MODIFIED		
DATE_LAST_MODIFIED		

Example for Excel format:

The table below lists item data with corresponding suppliers' data (**yellow** fields are for Items table, **green** fields for Item Suppliers table). Some of the items in the example have more than one supplier definition, meaning more than one supplier supplies this item. In this case add another row for the same Item Code and fill in only the data for the supplier.

Item Code	Description	UPC	TYPE_ CODE	GROUP_ CODE	PACKET_ SIZE	DEFAULT_ ISSUE_QTY	CATEGORY _CODE	ITEM_ PRICE
2300167	**ID2300167**	**02300167**	**E**	**0**	**1**	**1**	R	10
2300167								
2300168	**ID2300168**	**02300168**	**E**	**1**	**10**	**10**		20
2300168								
2300168								
2300169	**ID2300169**	**02300169**	**D**	**2**	**5**	**5**	G	30
2300170	**ID2300170**	**02300170**	**D**	**3**	**5**	**5**	K	40
2300171	**ID2300171**	**02300171**	**R**	**4**	**10**	**10**	A	50
2300172	**ID2300172**	**02300172**	**R**	**5**	**5**	**5**		60
2300173	**ID2300173**	**02300173**	**K**	**6**	**1**	**1**		70

…continuation of the table

REWORK _PRICE	IS_CALC _LEVEL	IS_CON SIGNME NT	SUPPLIER _KEY	SUPPLIER _CODE	SUPPLIER _PRICE	SUPPLIER _DISCOUNT	MIN_ ORDER_ QTY	PACKAGE_ SIZE
5	1	1	1	01	8	10	10	5
				02	6	20	10	5
10	1	1	2	02	18	10	5	5
				03	16	20	5	5
				04	14	30	5	5
15	1	1	3	03	28	10	20	10

20	1	1	4	04	38		20	10
25	1	1	5	05	48		20	10
30	1	0	1	01	58	10	20	10
35	1	0	1	01	68	10	20	10

Import Items and their Suppliers:

In order to import items together with their suppliers, both tables ENT_ITEM_MASTER and ENT_ITEM_SUPPLIERS should be added to one import project and imported at once. Otherwise you can import the items first and their suppliers later and then create a link between them. For separated import follow these steps:

1. Edit for input the data of Items and Item Suppliers in one table or in two separate tables.
2. Create import project with ENT_ITEM_MASTER table for importing only Items and import the data.
   At this stage Items should be added with no supplier definitions to the view "Menu: Main → Item →Search Item".
3. Create import project with ENT_ITEM_SUPPLIERS table for importing Suppliers for the items that were already imported and then import the data.
   At this stage Supplier/s will be added to the 'Item Maintenance' screen on tab 'Supplier Information'.
4. Import again the ENT_ITEM_MASTER table only with the SUPPLIER_KEY field for 'Primary Supplier' value. This value cannot be imported correctly before carrying out the previous step 3.

22.1.5 Import Cost Centers

This section describes Import of **Cost centers** by table **TVL_COST_CENTER_DETAILS** and Import of **Cost Centers' Links** by table **TVL_COST_CENTER_LINKS**.

These tables cannot be imported independently, See the note.



Note: In order to import Cost Centers and the links between them, you must first add **manually** Cost Center Headers as described in Chapter D: Add Cost Center Header (section 19.1).

Import **Cost centers** by TVL_COST_CENTER_DETAILS:
This table allows you to add Cost Centers to the view "Menu: Administration → Cost Center Details" with no link to other cost centers.

Field Name	Field in the User Interface	Input Format
COST_CENTER_CODE (Required, Unique)	Cost Center Code	Free text up to **50** characters
COST_CENTER_VALUE (Required)	Cost Center Description	Free text up to **50** characters
COST_CENTER_KEY defined as COST_CENTER_HEADER (Required, Unique)	Cost Center Name	**Cost Center Name** as appears on the 'Cost Center Header Maintenance' screen
COST_CENTER_DTL_FATHER_KEY	This field is not in use anymore since the change in version 4 in Cost Centers: Now every Cost Center can be linked to several different Cost Centers on the Cost Center Header above.	
USER_CREATED	These fields are not editable in the interface and not recommended for import.	
DATE_CREATED		
USER_LAST_MODIFIED		
DATE_LAST_MODIFIED		

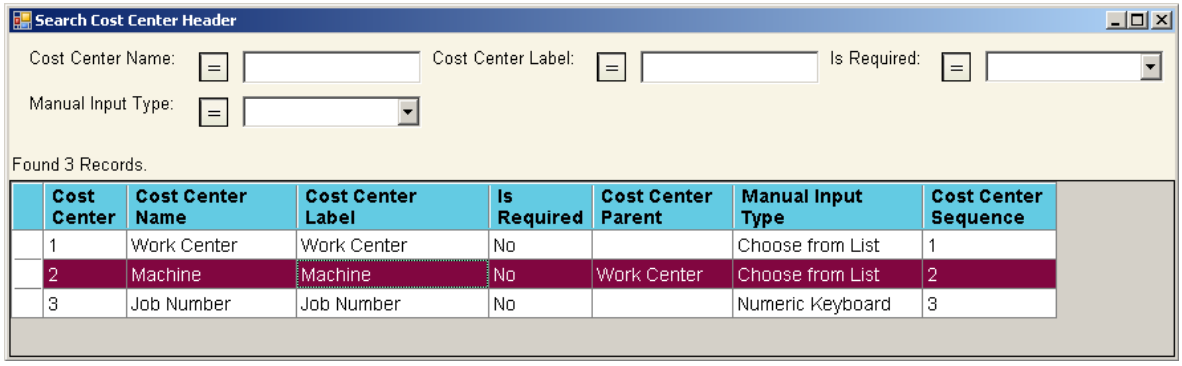
Import **Cost Centers' Hierarchy** by table TVL_COST_CENTER_LINKS:
This table allows you to link the cost center to its parent cost center/s as seen on the 'Cost Center Details Maintenance' screen.

Field Name	Field in the User Interface	Input Format
COST_CENTER_DTL_KEY defined as COST_CENTER_CODE_CHIL	Cost Center Code	Free text up to **50** characters

D (Required, Unique)		
COST_CENTER_FATHER_KEY defined as COST_CENTER_CODE_PARENT (Required, Unique)	The 'Cost Center Code' of the 'Cost Center Detail Parent' which is marked on the 'Cost Center Details Maintenance' screen	Free text up to **50** characters
USER_CREATED	These fields are not editable (and not visible) in the interface and not recommended for import.	
DATE_CREATED		
USER_LAST_MODIFIED		
DATE_LAST_MODIFIED		

Example for Excel format:

This example is for import of cost centers for two headers that were manually created, as seen on the attached screen:


Search Cost Center Header
Cost Center Name:
Cost Center Label:
Is Required:
Manual Input Type:
Found 3 Records.
Cost Center
Cost Center Name
Cost Center Label
Is Required
Cost Center Parent
Manual Input Type
Cost Center Sequence
1 Work Center Work Center No Choose from List 1
2 Machine Machine No Work Center Choose from List 2
3 Job Number Job Number No Numeric Keyboard 3

The header called 'Work Center' is independent and the header called 'Machine' hierarchies cost centers from Work Center header.

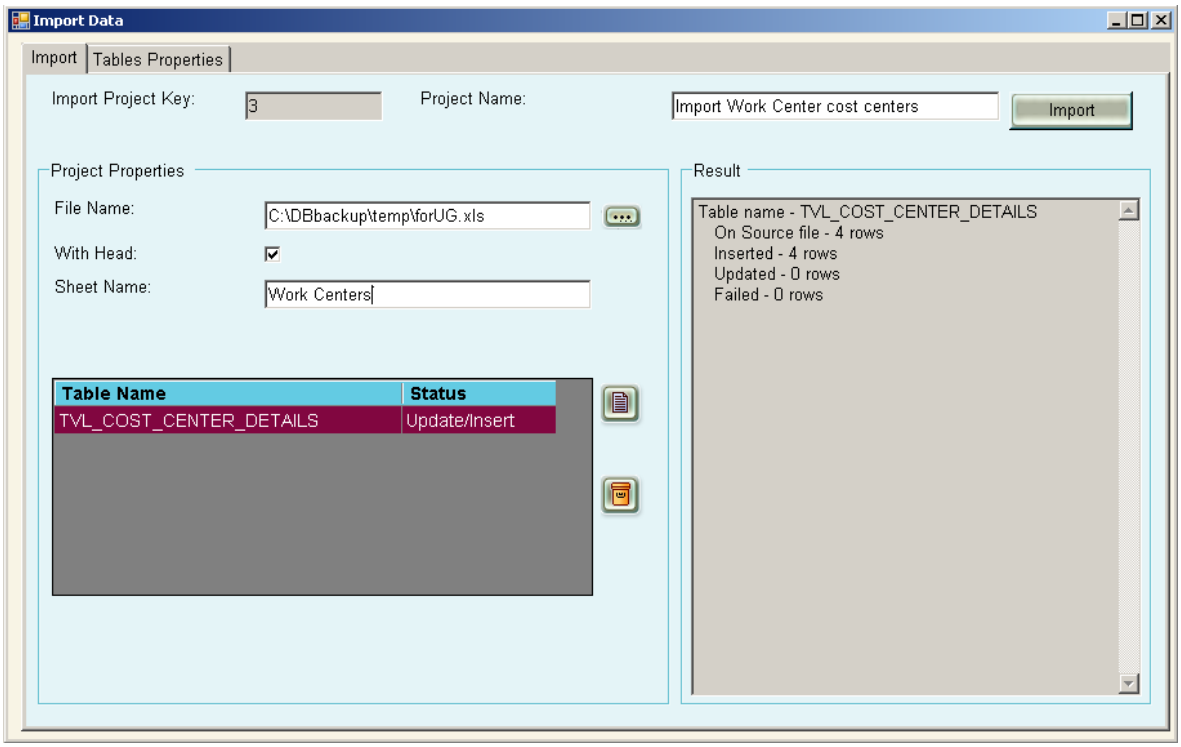
1. Create manually Cost Center Headers
2. Create data table for the cost centers of 'Work Center' header, as in the following table:

Table 1: Data for table TVL_COST_CENTER_DETAILS:

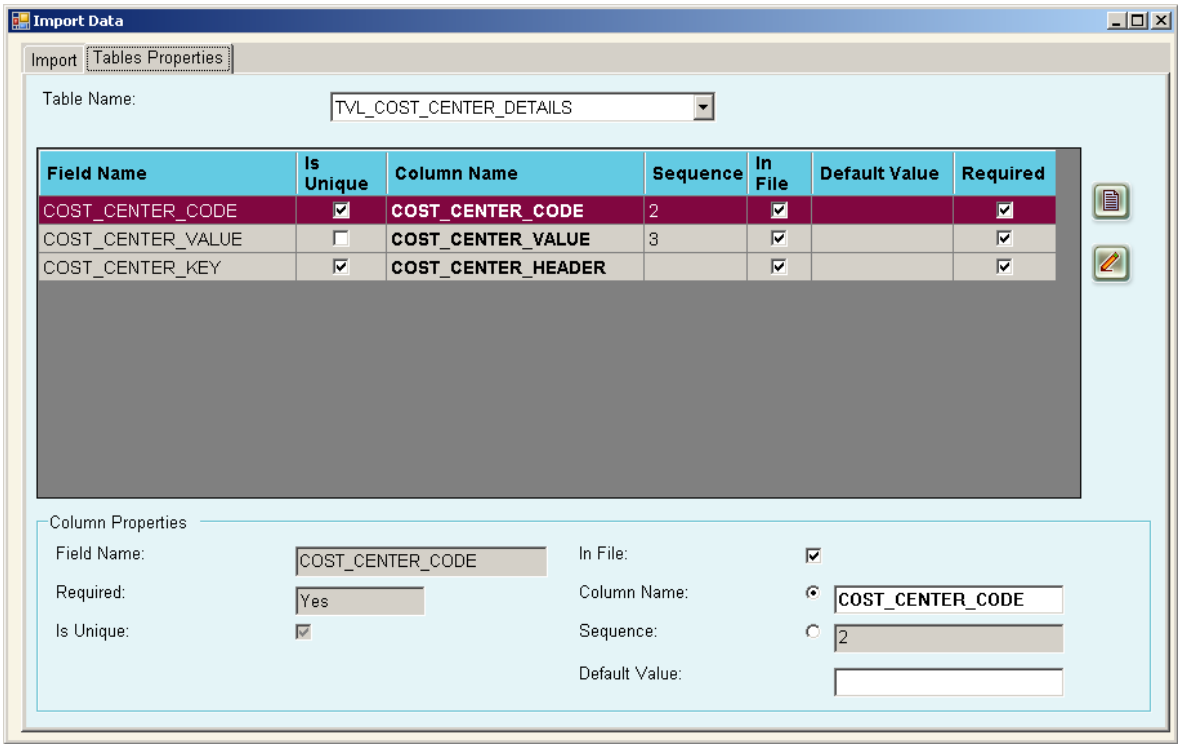
COST_CENTER_HEADER	COST_CENTER_CODE	COST_CENTER_VALUE
Work Center	WC01	Tooling
Work Center	WC02	Milling
Work Center	WC03	Drilling
Work Center	WC04	Threading

3. Create import project for importing the cost centers of 'Work Center' header and import the data, as in the following screens:

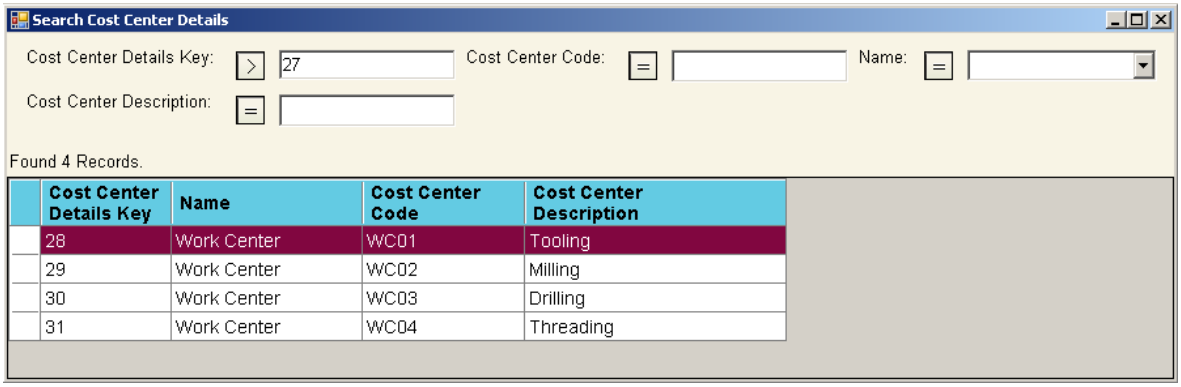
Import project header



Import project – adjusting columns between Excel and Project details



Cost centers of Work Center header imported by the project:



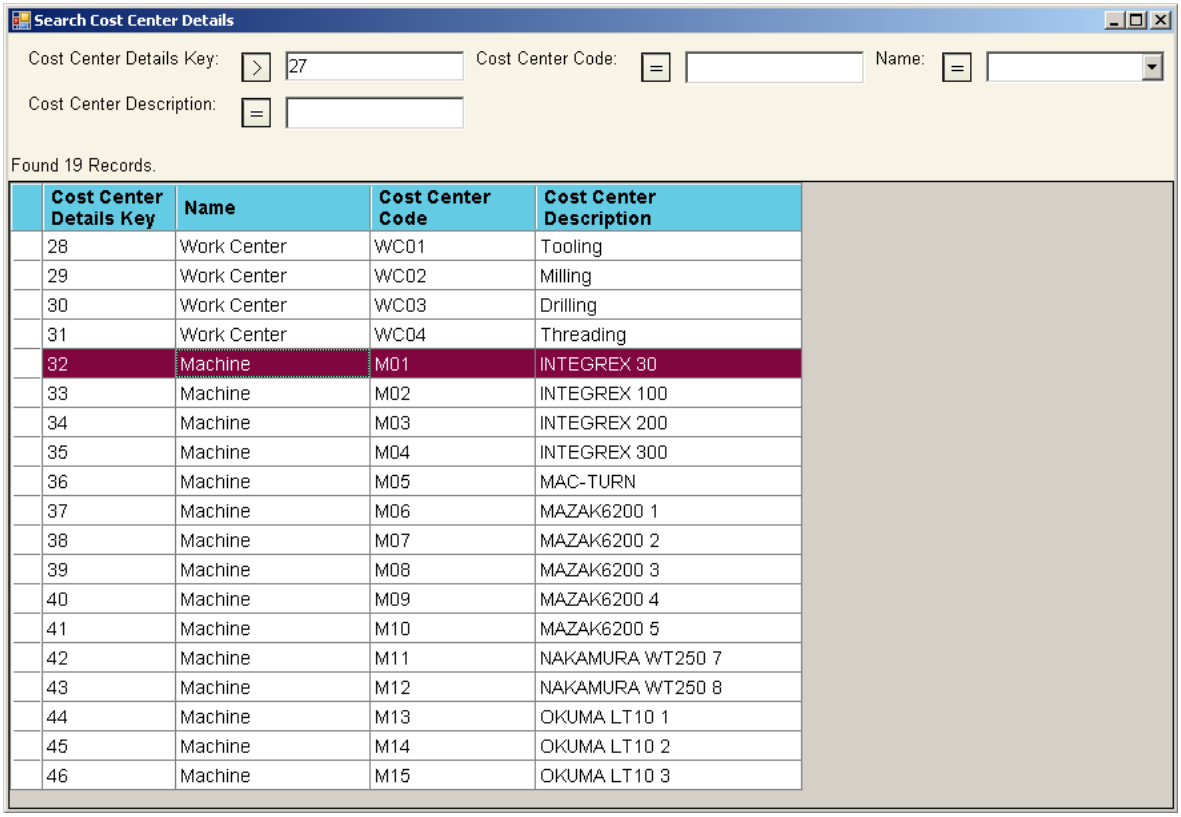
4. Create data table for the cost centers of 'Machine' header, as in the following table:

Table 2: Data for table TVL_COST_CENTER_DETAILS:

COST_CENTER_HEADER	COST_CENTER_CODE	COST_CENTER_VALUE
Machine	M01	INTEGREX 30
Machine	M02	INTEGREX 100
Machine	M03	INTEGREX 200
Machine	M04	INTEGREX 300
Machine	M05	MAC-TURN
Machine	M06	MAZAK6200 1
Machine	M07	MAZAK6200 2
Machine	M08	MAZAK6200 3
Machine	M09	MAZAK6200 4
Machine	M10	MAZAK6200 5
Machine	M11	NAKAMURA WT250 7
Machine	M12	NAKAMURA WT250 8
Machine	M13	OKUMA LT10 1
Machine	M14	OKUMA LT10 2
Machine	M15	OKUMA LT10 3

5. Create another import project for importing the cost centers of 'Machine' header and import the data similar to the previous import.

Cost centers of Machine header imported by the project:



Cost Center Details Key	Name	Cost Center Code	Cost Center Description
28	Work Center	WC01	Tooling
29	Work Center	WC02	Milling
30	Work Center	WC03	Drilling
31	Work Center	WC04	Threading
32	Machine	M01	INTEGREX 30
33	Machine	M02	INTEGREX 100
34	Machine	M03	INTEGREX 200
35	Machine	M04	INTEGREX 300
36	Machine	M05	MAC-TURN
37	Machine	M06	MAZAK6200 1
38	Machine	M07	MAZAK6200 2
39	Machine	M08	MAZAK6200 3
40	Machine	M09	MAZAK6200 4
41	Machine	M10	MAZAK6200 5
42	Machine	M11	NAKAMURA WT250 7
43	Machine	M12	NAKAMURA WT250 8
44	Machine	M13	OKUMA LT10 1
45	Machine	M14	OKUMA LT10 2
46	Machine	M15	OKUMA LT10 3

6. Create data table for the links of cost centers of 'Machine' header to the cost centers of 'Work Center' header, as in the following table:

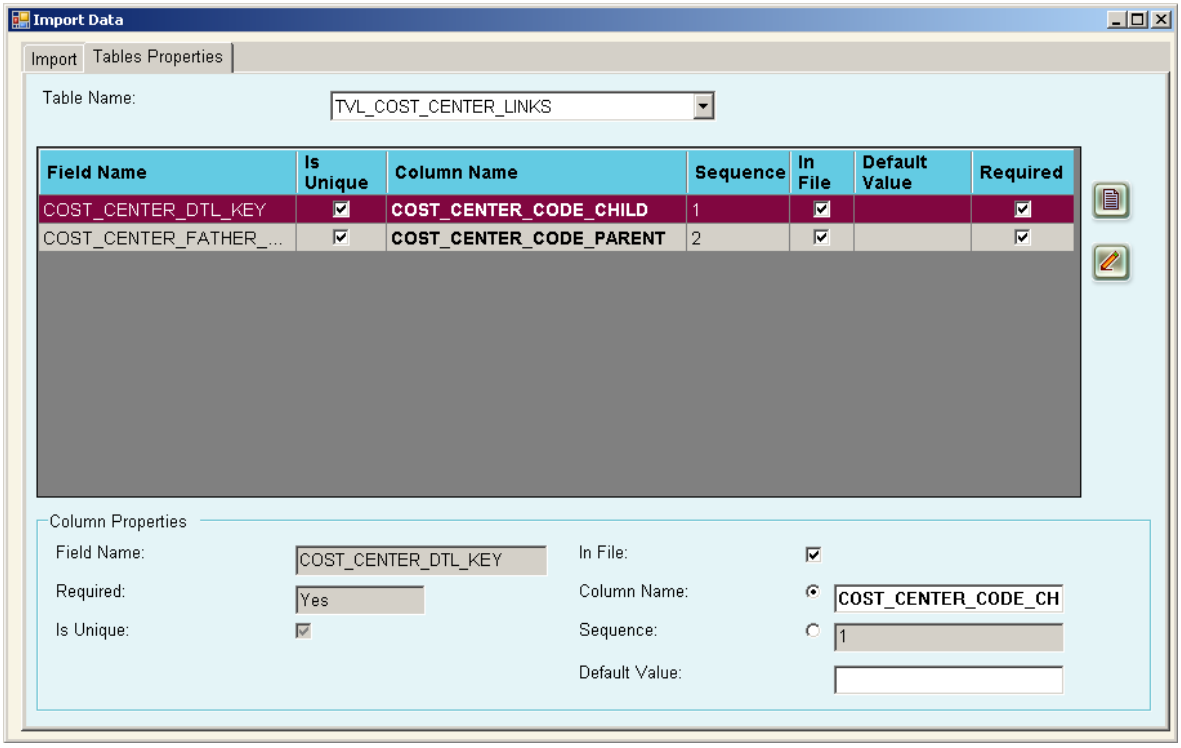
   Table 3: Data for table TVL_COST_CENTER_LINKS:

COST_CENTER_CODE_CHILD	COST_CENTER_CODE_PARENT
M01	WC01
M02	**WC01**
M02	**WC02**
M03	WC02
M04	**WC02**
M04	**WC03**
M04	**WC04**
M05	WC02
M06	WC02
M07	WC02
M08	WC03
M09	WC03
M10	WC03
M11	**WC01**
M11	**WC03**
M11	**WC04**
M12	WC03
M13	WC03
M14	WC03
M15	WC03

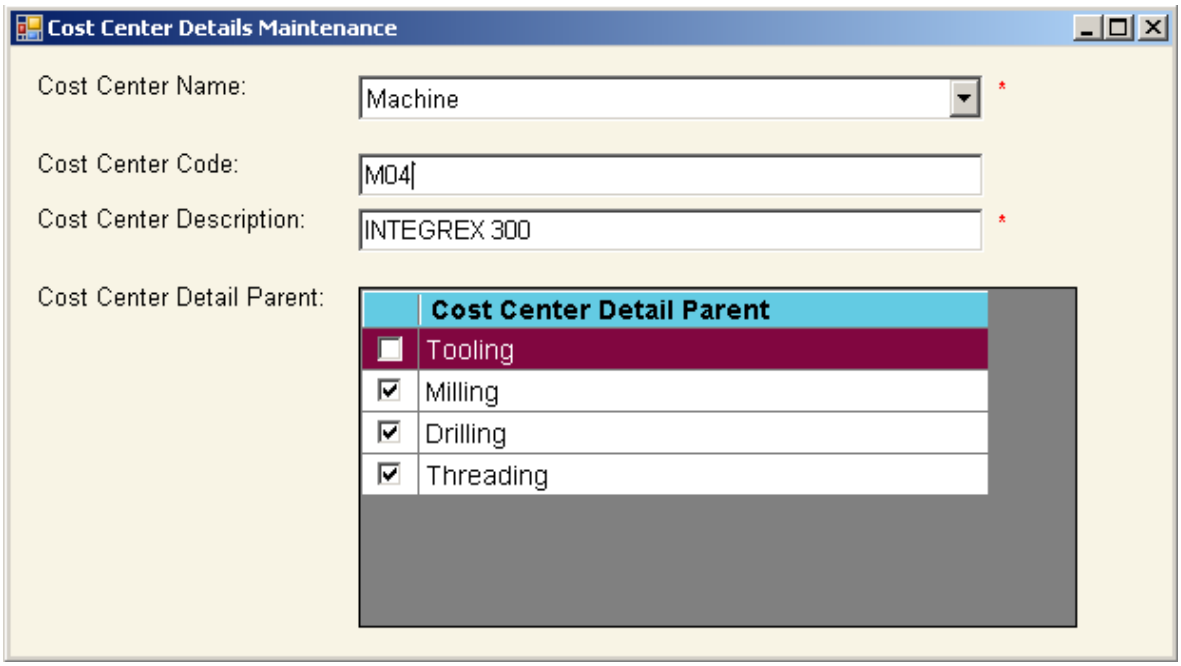
   Please note that in the table of links some of the Machine cost centers (marked in red) are linked to more than one Work Center.

7. Create import project for importing the links and import the data, as in the following screen:

Import project – adjusting columns between Excel and Project details



Links between a cost center and its parent cost center imported by the project:



At this point the import of cost center is completed by importing cost centers to two headers and linking them. If you need to import cost center to more headers, make it in similar way.

22.1.6 Import Bins

This section describes Import of **Data for Bins** by table **ENT_BIN_MASTER**.

The purpose of this module is to import easily the **Items definitions** and **Bins properties** for a group of bins at once.

Please notice that this module will not import the bins themselves, therefore the bins must be created prior to the import and then exported to excel for editing the data for import.

Field Name	Field in the User Interface	Input Format
BIN_CODE (Required, Unique)	Bin Code	**Bin Code** as appears in the 'Bin Maintenance' screen
ITEM_KEY defined as ITEM_CODE (Required)	Item Code	**Item Code** as appears in the 'Item Maintenance' screen
CAPACITY (Required)	Capacity	Numerical
DEFAULT_ISSUE_QTY (Required)	Default Issue Quantity	Numerical
BIN_STATUS	Status	1 (Active) or 2 (Not Active)
IS_OVER_CAPACITY_ALLOWED	Allow Over Capacity	0 (Unmarked) or 1 (Marked)
IS_CONSIGNMENT	Consignment	0 (Unmarked) or 1 (Marked)
IS_CALC_LEVEL	Bin Stock Management	0 (Unmarked) or 1 (Marked)
IS_REWORK	Reworked	0 (Unmarked) or 1 (Marked)
IS_USED	Used Item	0 (Unmarked) or 1 (Marked)
IS_AUTO_ORDERING	Automatic Order	0 (Unmarked) or 1 (Marked)
NO_ORDER	Do not Order	0 (Unmarked) or 1 (Marked)
NO_ISSUE	Do not Issue	0 (Unmarked) or 1 (Marked)
ISSUE_PRICE	Issue Price	Numerical
REMARKS	Remarks	
LAST_COUNTED_DATE	These fields are not in the interface (or not editable) and not recommended for import.	
ERP_STATUS		
ISSUE_LEVEL_CODE		
BIN_TYPE_CODE		
LAST_ISSUE_DATE		
LAST_RECEIVE_DATE		
USER_CREATED		
DATE_CREATED		
USER_LAST_MODIFIED		
DATE_LAST_MODIFIED		

Example for Excel format:

BIN_CODE	ITEM_CODE	CAPACITY	DEFAULT_ ISSUE_QTY	BIN_STATUS	IS_OVER_ CAPACITY_ ALLOWED	IS_ CONSIGNMENT
Demo1-01-01-01	5501822	20	10	Active	0	0
Demo1-01-01-02	5502097	20	1	Active	0	0
Demo1-01-01-03	5502128	20	1	Active	0	1
Demo1-01-01-04	5502149	30	10	Active	0	1
Demo1-01-01-05	5502149	30	10	Active	0	0
Demo1-01-01-06	5502154	30	10	Active	0	0
Demo1-01-01-07	5502161	20	10	Active	0	0
Demo1-01-01-08	5502161	30	10	Active	0	0
Demo1-01-01-09	5502203	40	10	Active	1	0

…continuation of the table

IS_CALC_ LEVEL	IS_REWORK	IS_USED	IS_AUTO_ ORDERING	NO_ORDER	NO_ISSUE	ISSUE_PRICE
0	0	0	0	0	0	
0	0	0	0	0	0	12,6
0	0	1	0	0	0	10,8
0	0	1	0	0	0	
0	0	1	0	0	0	
0	0	1	0	0	0	
0	0	1	0	0	0	
0	0	1	0	0	0	
0	0	1	0	0	0	

22.1.7 Import Stock Management Data

This section describes Import of **Data for Stock Management** by table **V_IMPORT_STOCK_MANAGE_LEVEL**.

The main purpose of this module is to import Minimum and Maximum quantities for any stock management level (Bin / Cabinet / Item) in order to allow automatic orders.

Field Name	Field in the User Interface	Input Format
ITEM_KEY defined as ITEM_CODE (Required, Unique)	Item Code	**Item Code** as appears in the 'Item Maintenance' screen
CABINET_KEY defined as CABINET_CODE (Required, Unique)	Cabinet Code	**Cabinet Code** as appears in the 'Cabinet Maintenance' screen. Not relevant for import on Item Level.

BIN_KEY defined as BIN_CODE (Required, Unique)	Bin Code	**Bin Code** as appears in the 'Bin Maintenance' screen. Not relevant for import on Item or Cabinet levels.
CALC_LEVEL (Required, Unique)	N/A	**Bin** or **Item/Cabinet** or **Item**
MIN_QTY_OV	Minimum Quantity	Numerical
MAX_QTY_OV	Maximum Quantity	Numerical
AV_USAGE_OV	Av. Monthly Usage	Numerical
AV_USAGE_EF_DATE	Av. Monthly Usage Expire Date	Date until the Minimum and Maximum quantities are valid, for example 31/12/2008
FREQUENCY_CLASS_OV	Frequency Class	A / B / C / D / E / Z / N
FREQUENCY_CLASS_EF_DATE	Frequency Class Expire Date	Date, for example 31/12/2008

Example for Excel format:
This is example for importing Minimum and Maximum quantities for the Item level which will be valid until 31/12/2008. The fields 'Cabinet Code' and 'Bin Code' are not relevant here and have no value; therefore they can be unchecked for 'In File' field in Import project (or removed, for fields which have the <Delete> button available).

ITEM_CODE	CABINET_CODE	BIN_CODE	CALC_LEVEL	MIN_QTY_OV	MAX_QTY_OV	AV_USAGE_EF_DATE
2300158			Item	10	20	31/12/2008
2300159			Item	10	20	31/12/2008
2300161			Item	30	40	31/12/2008
2300162			Item	10	15	31/12/2008
2300164			Item	20	30	31/12/2008
2300165			Item	15	20	31/12/2008
2300166			Item	15	20	31/12/2008

…continuation of the table

AV_USAGE_OV	FREQUENCY_CLASS_OV	FREQUENCY_CLASS_EF_DATE

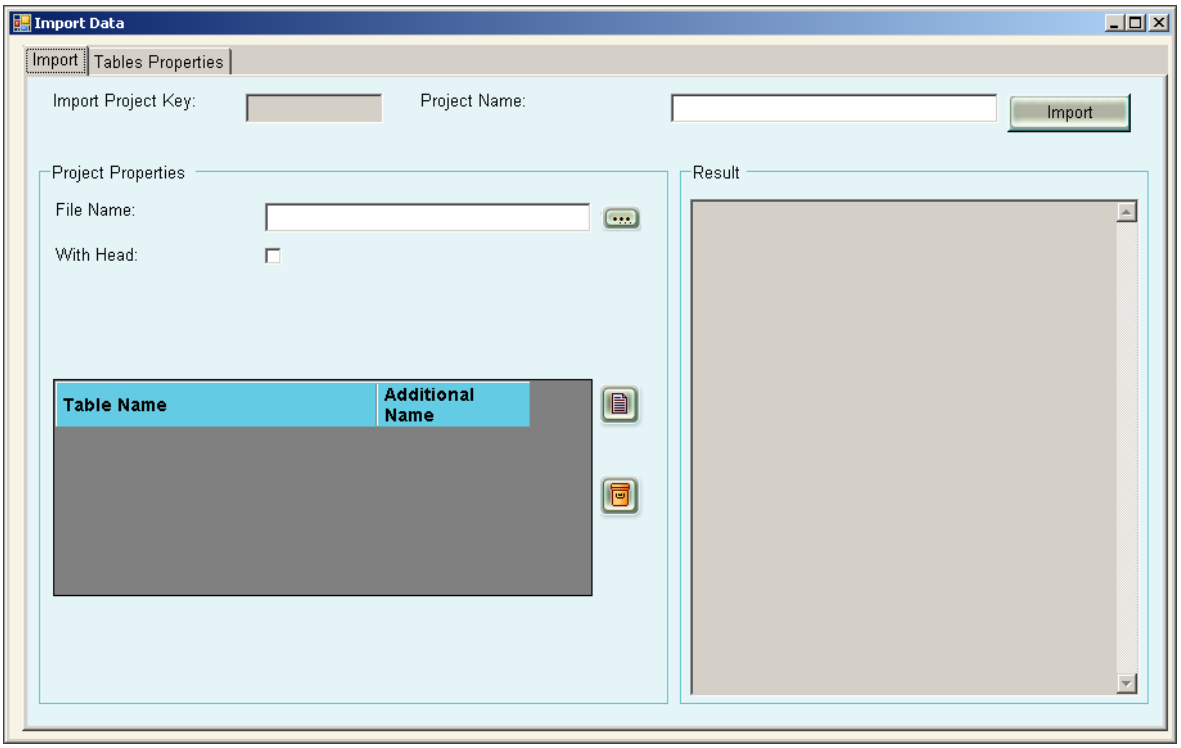
22.2 Tips for Preparing Input Data

This section provides tips for editing the import data. Please follow these tips and Chapter D: Tables for Import (section 22.1) to ensure successful import of all records.

1. Use the top row for describing the column names (optional, recommended).
2. The tables in Chapter D: Tables for Import (section 22.1) describe the exact format for each field. Use them for preparing the data.
3. Remove all the empty rows and columns from the file. Especially blank rows can cause a failure in importing also normal records.
4. Change the format of all the cells in Excel to textual. In Excel select all the rows, click the right button and select 'Format Cells…' from the popup menu. In the 'Number' tab, select Text' option. Make sure that the numerical cells are formatted correctly.
5. It is recommended to set default values in the import project for all the fields you try to import, especially for those marked as 'Required'.
6. In Excel insert values for all the fields defined in the import project as 'Required'. You can define 'Default Value' for these fields in the import project and the import will use them for the records which miss this data in Excel. Otherwise it might import the records, but without displaying the imported records in the search screens.
7. Many fields in the 'Field Name' in the import project are called with '_KEY', but are actually '_CODE' value required. For example, for table ENT_BIN_MASTER for field ITEM_KEY, actually ITEM_CODE value is accepted.
8. Before using some values for import into '_CODE' fields, verify first that this value already exists in the database. For example, when importing items, verify that the 'Item Groups' (or Unit of Measure) that you use for import (in import file or in import project as a Default Value), is already exist in the database. If not, it must be added manually or imported beforehand.
9. Verify that there is no mismatch between the input type and the expected input type, such as avoiding importing alpha-numerical value when numeric value is expected.

22.3 Creating Import project

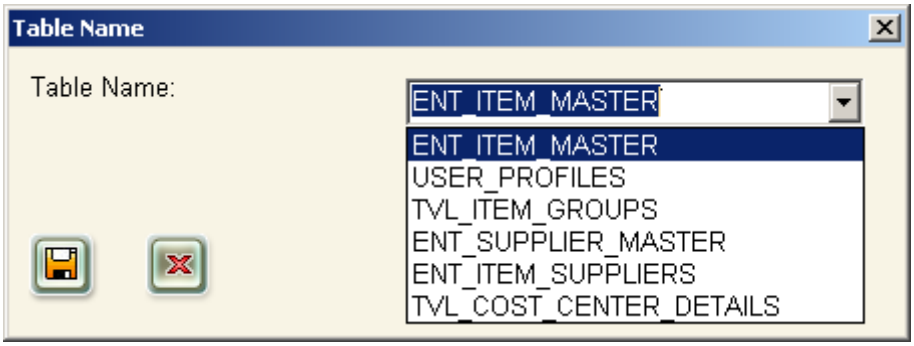
1. Follow the menu "Menu: Administration → Import Data". A Search screen will be displayed enabling search for previously created import projects.
2. Click the <Add> button on the Menu bar.
   The following screen will then be displayed:



On the "Import" tab:

3. Insert in the field "Project Name" the name for the new project.
4. Select the import file (of *.xls or *.txt type) by clicking the browse <…> button.
   - If you have chosen Excel format, "Sheet Name" edit box will be displayed. Type the exact sheet name you want to import.
   - If you have chosen Text format, "Separator" combo box will be displayed. Select the same separator that is used in the file.
5. Check box "With Head" if your import file has a fields' heading as a first row
6. Click the <Add> button displayed next to grid at the bottom of the screen in order to add tables for import.

The following screen will be displayed listing all the available tables for import:



7. Select Table that you want to include in the import and click the <Save> button. The table will be added to the list of tables for import.
8. Click the <Save> button on the Menu bar to save the project.

22.4 Adjusting data for import

9. Go to "Table Properties" tab. The combo box "Table Name" will display all the available tables for import.
10. For every table you want to import follow the next instructions:

Edit table and its existed fields:

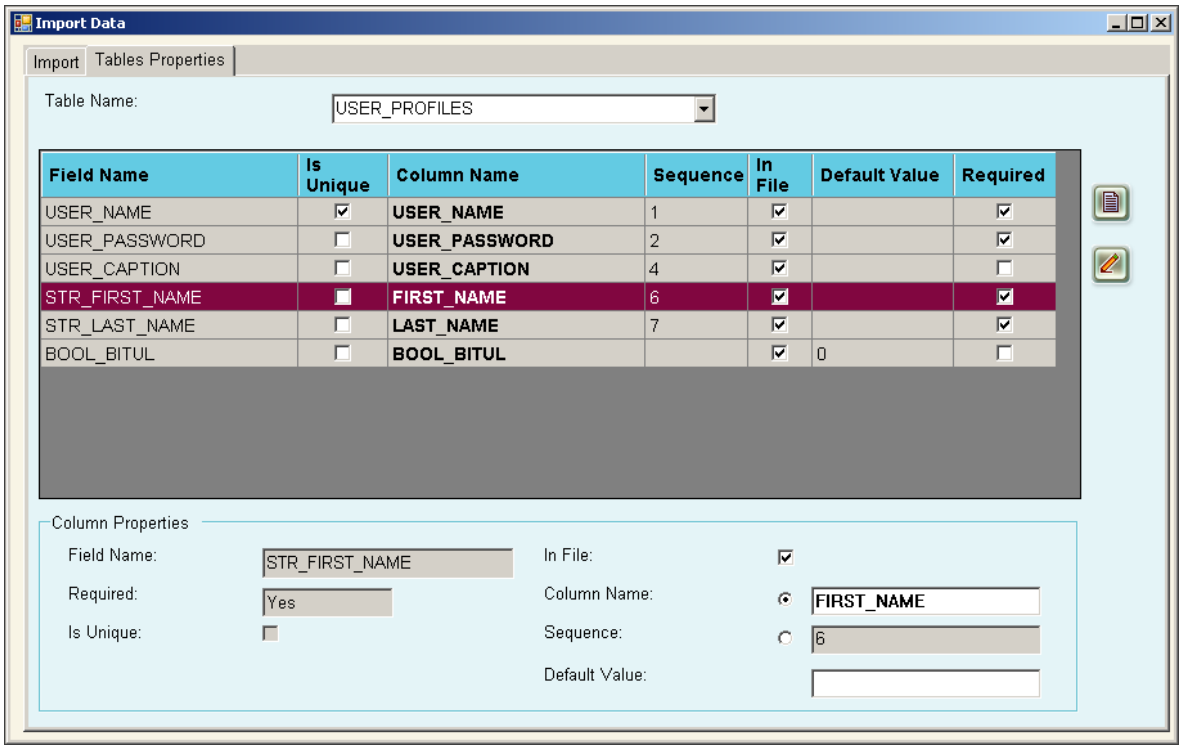
Select from the combo box "Table Name" the table for import. The grid for table fields will be displayed including all the required fields described in the table above and sometimes some of the optional fields that were added by default.

Here you can add other available fields to the table and to set definitions for all the fields from the grid.

11. Select from the grid the field for editing and click the <Update> button on the right side of the grid.

    Additional controls will be displayed to allow the data to adjust.

    The following screen will then be displayed:



12. If there is no data in your import file for the field or you don't want to use it:
    - Un-check the box "In File".
    - Fill the "Default Value" using the appropriate value type (*Numeric*, *Text*, *Boolean* or *Date*) as described in the tables above.
13. If there is a data in your import file for the field:
    - Check the box "In File"
    - Select "Column Name" and fill the edit box with the exact name from the import file if you have a column title for it, or;
    - Select "Sequence" and fill the edit box with the column sequence in the import file (from 1 and on).
    - Fill the "Default Value" using the appropriate value type (*Numeric*, *Text*, *Boolean* or *Date*). This value will be used in case you have no data for the record in the import file.
14. Click the  <Save> button on the Menu bar.
15. Repeat the same actions for all the other fields that you want to edit

Important! All the records will be imported according to "Is Unique" value, meaning that if there is already a record in the database that has the same value for unique field as the record for import, then no row will be imported but only updated with other fields. Otherwise the record will be imported.

Add additional table fields:

Here you can add additional optional fields that were not added to the list by default and make definitions for them.

16. Click the <Add> button on the right side of the fields' grid. A new row will be added to the grid listing all the additional available fields for import.
17. Select in the "Field Name" control the name of the field that you want to add and make the same definitions as for the existed fields.

Delete additional table fields:

In case there is a field which is not required (see "Required" column in the grid) and is optional, it can be removed from the list of import.

18. Select the row of the optional field. The button <Delete> is added to the right side of the field's grid.
19. Click the <Delete> button and confirm the deletion. Now the row is removed from the grid.

22.5 Importing the data

After making all the adjustments between import file and Manage "Import Data" screen for all the fields in the table and saving the changes:

20. Go to "Import" tab.
21. Click the <Save> button to save all the changes.
22. Click the <Import> button.

    You will be notified about import operation on the message control below.

    In case of successful import, the message will describe the number of updated rows and number of imported rows.

    In case of failure, the message will describe the reason for failure.

22.6 Loading Import project

Once you have created Import Project, it is saved in the list. You can load the project, edit the data and run the import again.

23. Follow the menu "Menu: Administration → Import Data". A Search screen will be displayed enabling search for previously created import projects.
24. In the "Search Import Data" screen, search for the saved projects (use the fields) by clicking the  <Search> button on the Menu bar. Select the project from the list and click the  <Update> button on the Menu bar or double click on the line. The selected project with its parameters will be loaded into "Import Data" screen.

Please notice that you can also delete an unwanted project by selecting the project line in the search screen and clicking the  <Delete> button on the Menu bar.

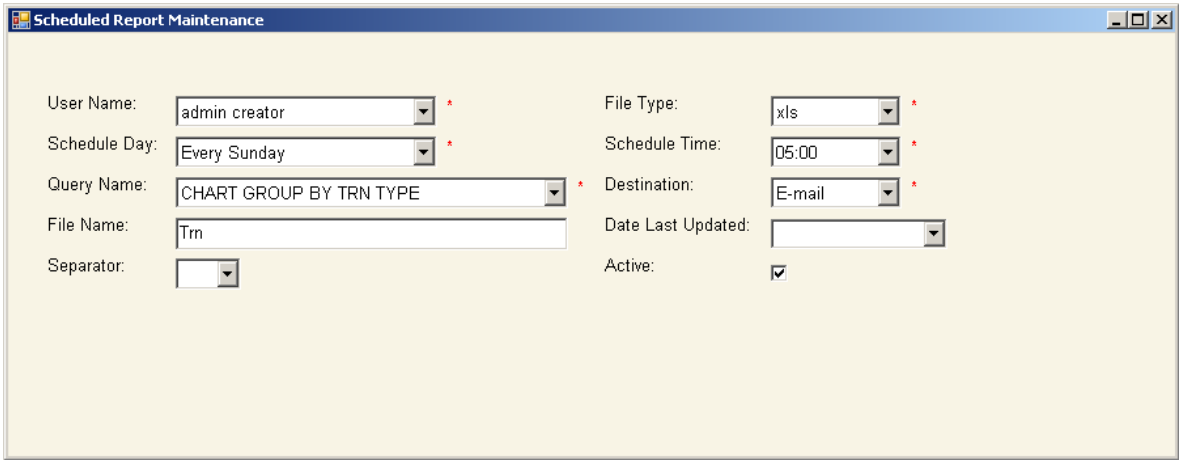
23 Report Scheduler

The Report Scheduler allows the user to create reports by pre-defined parameters and to send them automatically at scheduled times by email.

23.1 Define the reports

In order to schedule reports, you must priory to create advanced reports and save its definitions as described in Chapter B: Reports (section 9).

1. Go to "Menu: Administration → Scheduling Reports ".
2. Click the <Add> button on the Menu bar.
   The following screen will appear:



3. Fill-in the data for the required fields:

User name:	Select the user to whom you want to send the report by Email. Make sure that the selected user has an email defined on his 'User Maintenance' screen.
File Type:	Select a file type for the report (XLS / XML / TXT / PDF).
Schedule Day:	Select a permanent day for running the report.
Schedule Time:	Select a permanent hour for running the report.
Query Name:	Select an advanced report that was previously defined and saved.

Destination: Select a destination for sending the report (E-mail / File).

E-mail – the created report will be sent to the user selected in the 'User Name' field by his email address. Make sure that the selected user has an email defined on his 'User Maintenance' screen.

File – the created report will remain on the hard drive by location defined in field 'File Name'.

File Name: Insert a file name or full path for the created report.

If this value is empty, the system will use the Query Name as File Name.

If you define only a file name or a full path which is identical to the path defined in system option **401**, then the file will be created temporarily. This system option points to temporary folder and its content is automatically removed when loading/closing Manage application. The default folder will be *"...\MatrixTempDir\Reports"* inside the installation folder.

Therefore if you need to keep the copy of the report as a file on the hard drive, it is recommended to insert a full and different path in order to override the path in the system option 401.

Date Last Updated: Updated by the system with the date when the last check for automatic reports was done. Please notice that the report will not be created at the day that was defined in this field, therefore it is recommended to keep this field initially empty or with a past date.

Separator: Separator sign used for separating fields in TXT files.

Active: Option to activate or deactivate the automatic running of the report.

4. Click the  <Save> button.

The record will be added to the list of scheduled reports. At the defined time, the report will run and will automatically create the report file. The file will be sent by email or will remain on the hard drive, accordingly to your selection. For using a periodic report that will run every day or week be sure that the date range in the report also matches the periodic selections like yesterday, last week or last month.

23.2 Activate the reports

In order to enable the reports to run fully automatically, there should a job [DBName]**ReportsEngine** for Reports on the **server**. This job is activated by the operating system.

To create the job:

1. Set the system option 209 to YES to create the job (if it is already YES, then change to NO and back to YES).
2. Login to the 'Database Administration' and check the existence of the job by the 'Activate Jobs' option. The job will run automatically by the operating system **at the scheduled time**,

You should also verify that the SQL Server Services are started. See more details regarding Jobs and SQL Server Services in Chapter E: Activate Jobs (section 25).

24 Interfaces

This section describes the screens that support interface with ERP systems, for example SAP. Please follow the instructions below for creating the required definitions.

24.1 Settings

Login to the MANAGE application and follow these instructions.

24.1.1 System Options

1. Open "Menu: Administration → System Options".
2. Set the following parameters:

   System Option 111 - Number of reference fields to use on Receive

   Number of reference fields to use on Receive for Interfaces. If none or 0, in TOUCH the reference fields' screen will be skipped.

   Reference 1 – PO Number

   Reference 2 – Line No.

Reference 3 and 4 – For future use

System Option 112 - Type of Reference fields

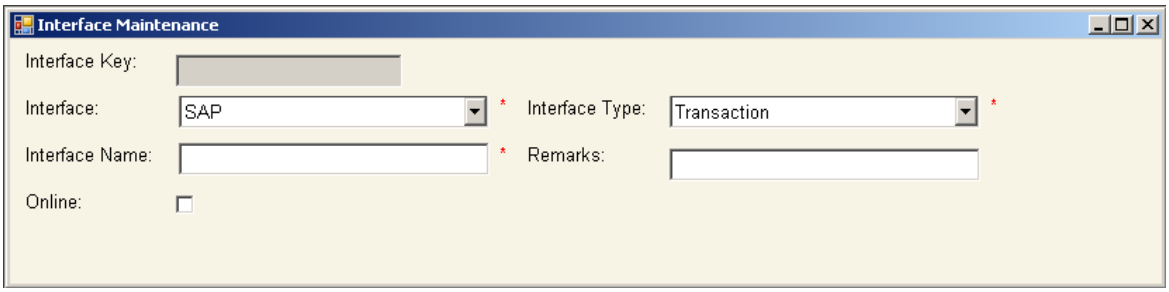
Type of Reference fields for Interfaces: Numeric or Text.

System Option 209 - Create Scheduled Reports

Activate job that automatically creates the Scheduled reports.

24.1.2 Creating Interface and Connection Definitions

1. Open "Menu: Administration → Interfaces → Interfaces".
2. Add new interface by clicking the <Add> button on the Menu bar.
   The following screen will be displayed:

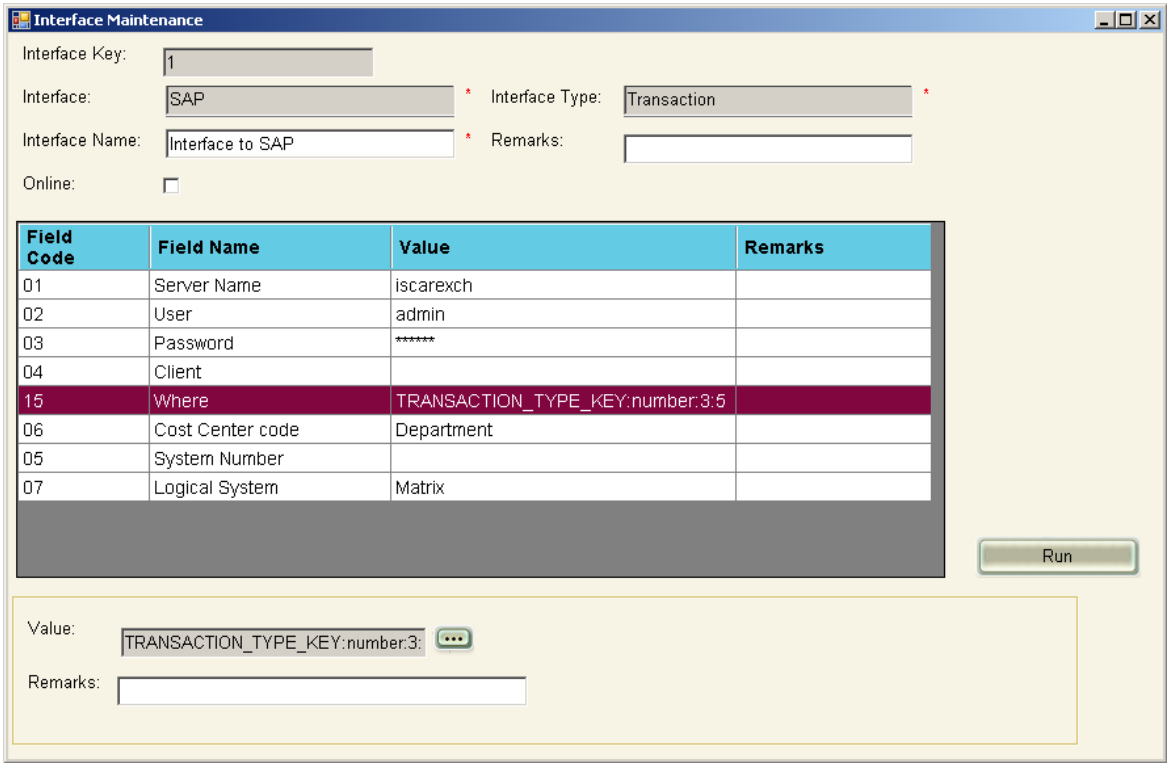


Fields Description:

Interface:	Select interface name (SAP – supported, FTP – not supported, GAL – not supported).
Interface Type:	The 'Transaction' interface type will transfer the Matrix transactions to the interface. The 'Stock Transfer' type will send the stock quantities to SAP in order to be compared with the SAP stock.
Interface Name:	Insert name for the interface.
Remarks:	Free text
Online:	Check if you wish to transfer the transactions online. Otherwise it can be transferred manually or by scheduler - for this, continue to the next paragraphs.

3. Click the <Save> button on the Menu bar.

The following screen will be displayed:



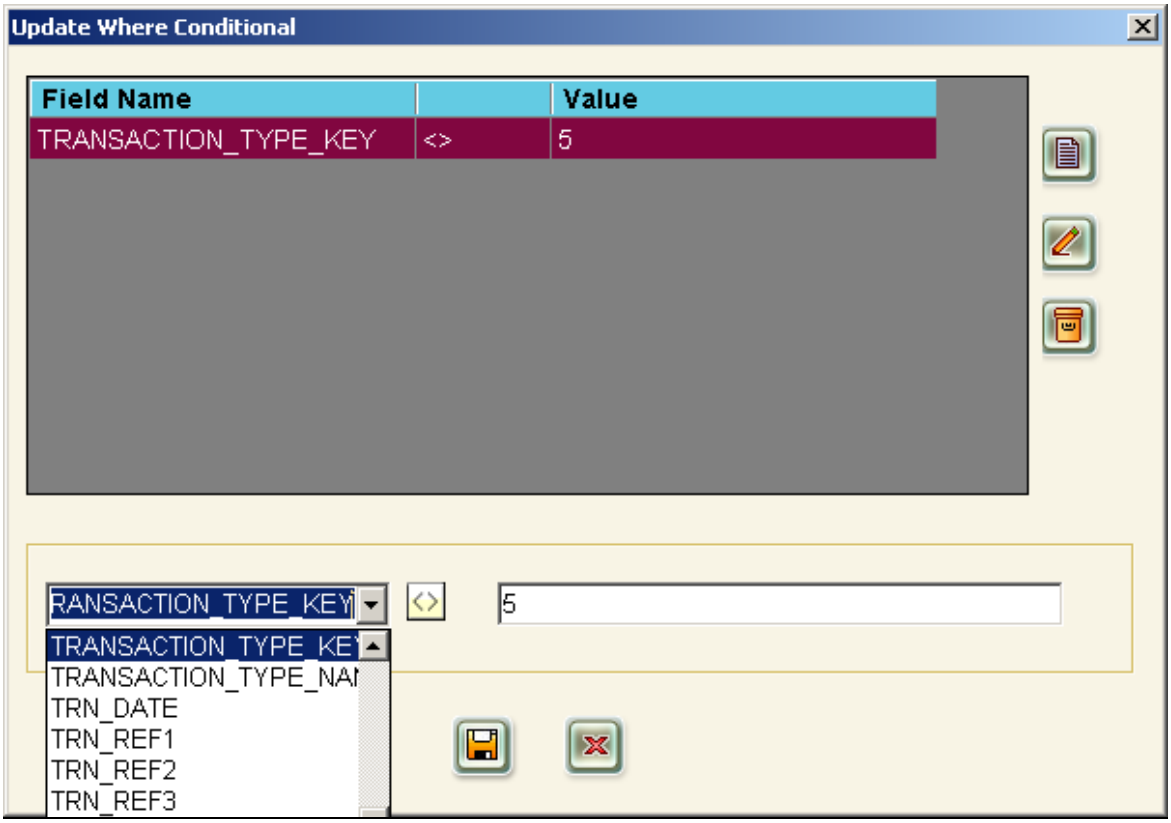
This screen enables you to set the connection definitions between Matrix and Interface.

By selecting a field line in the grid, the 'Value' and 'Remarks' fields will be displayed according to the input type (textual, list, search by browse).

4. Select line by line to set the values for fields.

   Select the **'Where'** field to set the conditions for transactions that need to be transferred.

   Click the  browse button to open the following screen:



The combo list displays all the relevant fields regarding transactions.

Use the <Add> button on the right side of the grid to add a new condition and set a condition value for it or update / delete the existing lines (<Update> <Delete>).

Click the button to change its sign.

Save all the conditions by clicking the <Save> button.

Note: The following table describes the transaction types and their key. The Matrix to SAP interface type is usually set to transfer all the transaction types, but actually only the **'Issue'** and **'Receive'** transactions will be processed in the MATRIX SAP interface program (MSI).

Transaction Key	Transaction Name

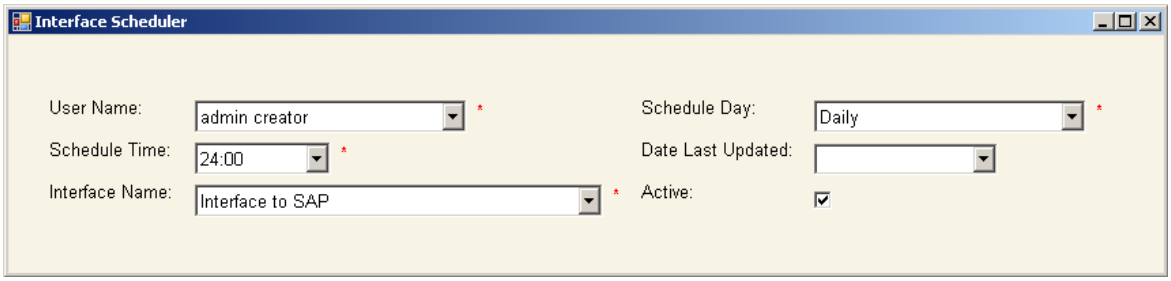
1	Adjust Bin Quantity
2	Issue
3	Receive
4	Return To Cabinet
5	Transfer
6	Zero Issue
7	Stock Count
9	Send To Rework

5. Click the 

<Run> button to transmit the transactions now or continue to the next instruction in order to create scheduler for transmission.

24.1.3 Creating Interface Scheduler

1. Open "Menu: Administration → Interfaces → Interface Scheduler".
2. Add new interface by clicking the  <Add> button on the Menu bar.
   The following screen will be displayed:



Fields Description:

User Name:	Set to any user.
Interface Name:	Select from the list the previously created interface.
Schedule Day:	Select the day the interface will be activated to transmit.
Schedule Time:	Select the time the interface will be activated to transmit.
Active:	Check the box to activate this schedule.

Date Last Updated: This field is automatically updated with the date of the last run scheduler.

3. Click the <Save> button on the Menu bar.

Note: To ensure that the scheduler will be activated, verify that System Option **209** is set to YES and that the **[DBName]ReportsEngine** job exists.

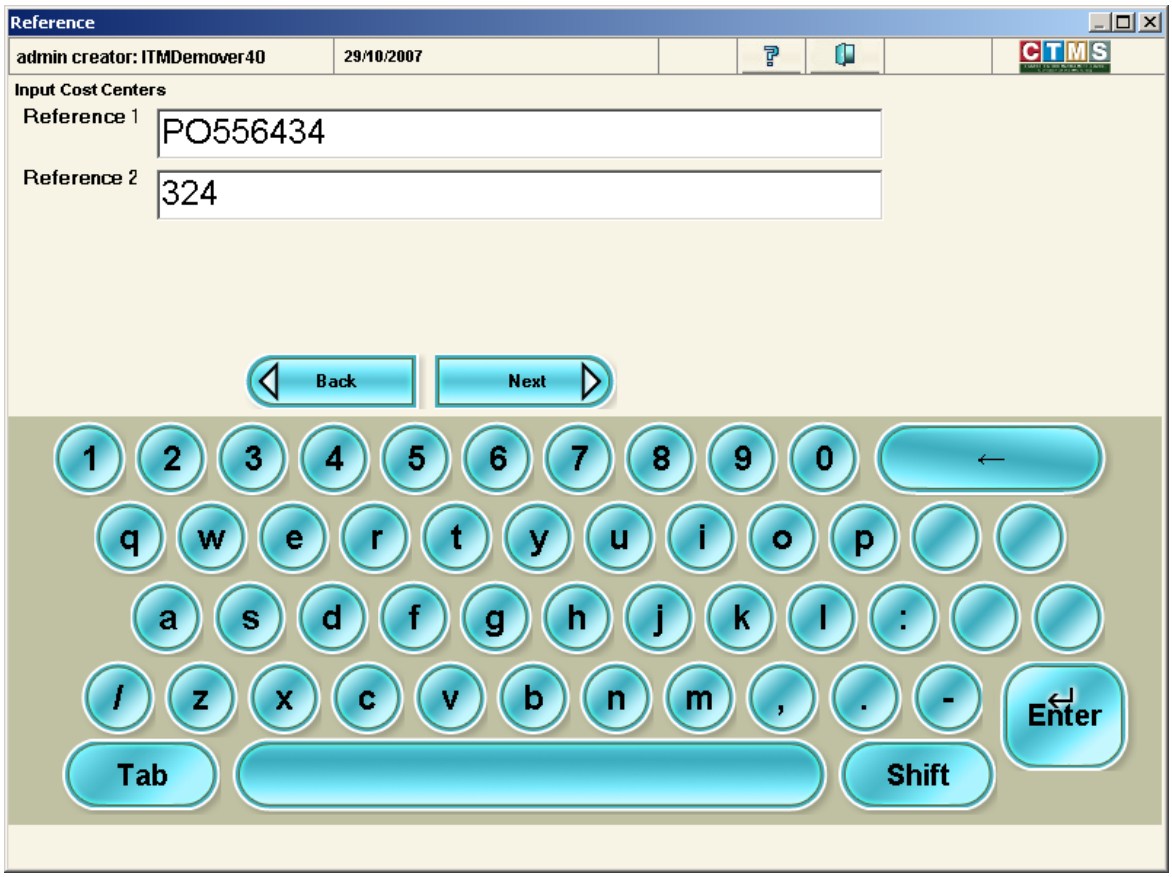
24.2 Creating transactions

In order to test the correctness of the interface definitions, make transactions on the MANAGE or TOUCH modules.
This section describes the changes done in the Transactions screens in order to support interfaces.

24.2.1 TOUCH Module

RECEIVE option:

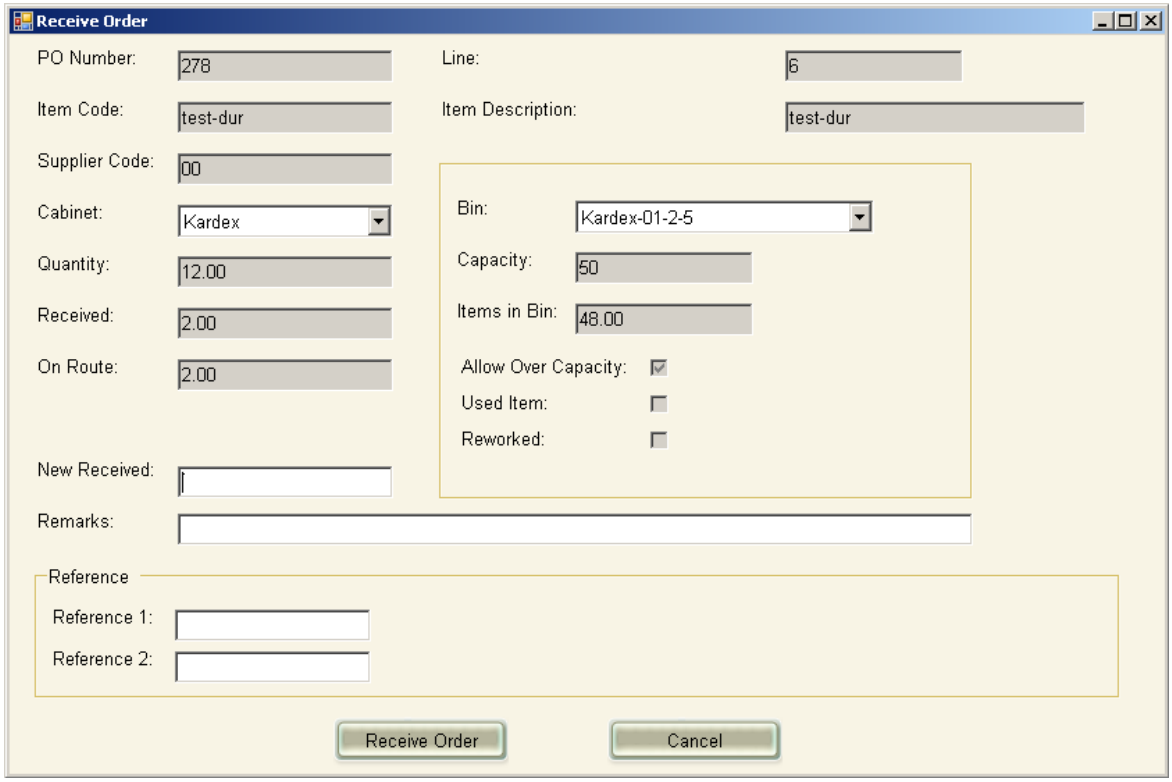
The following screen appears after the user selects the item to receive and before selecting the received quantities. This screen will appear only if system option **111** is set to display reference fields.



24.2.2 MANAGE Module

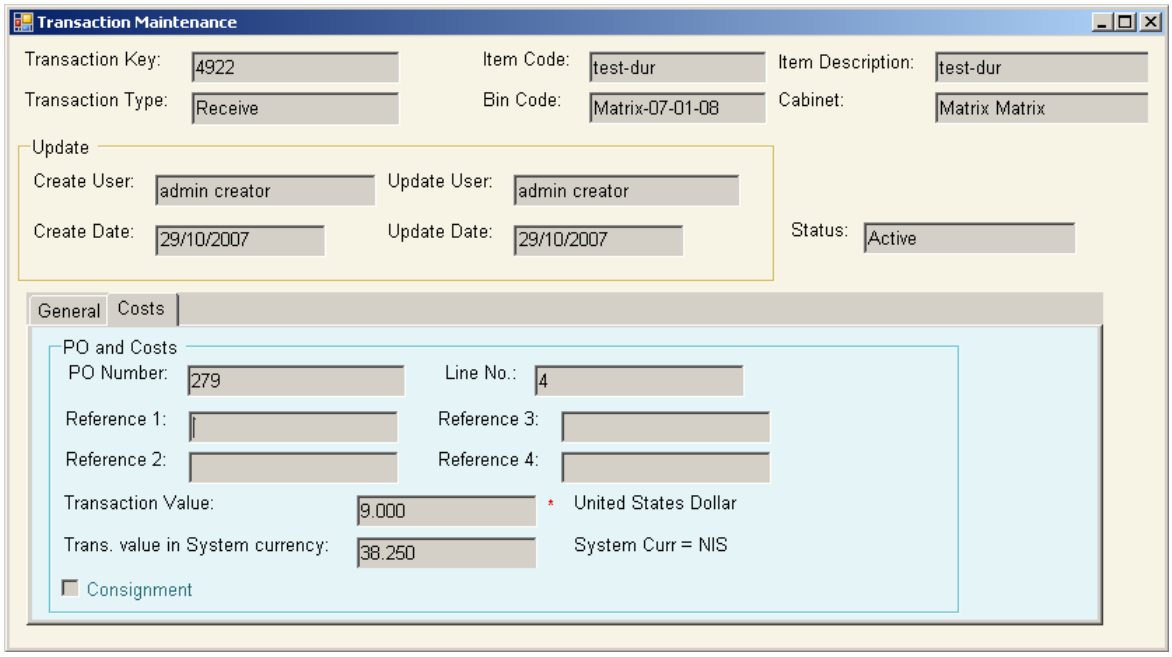
Receive screen:

This screen displays additional reference fields according to system option **111**.



Transaction Maintenance screen:

This screen includes four additional reference fields.

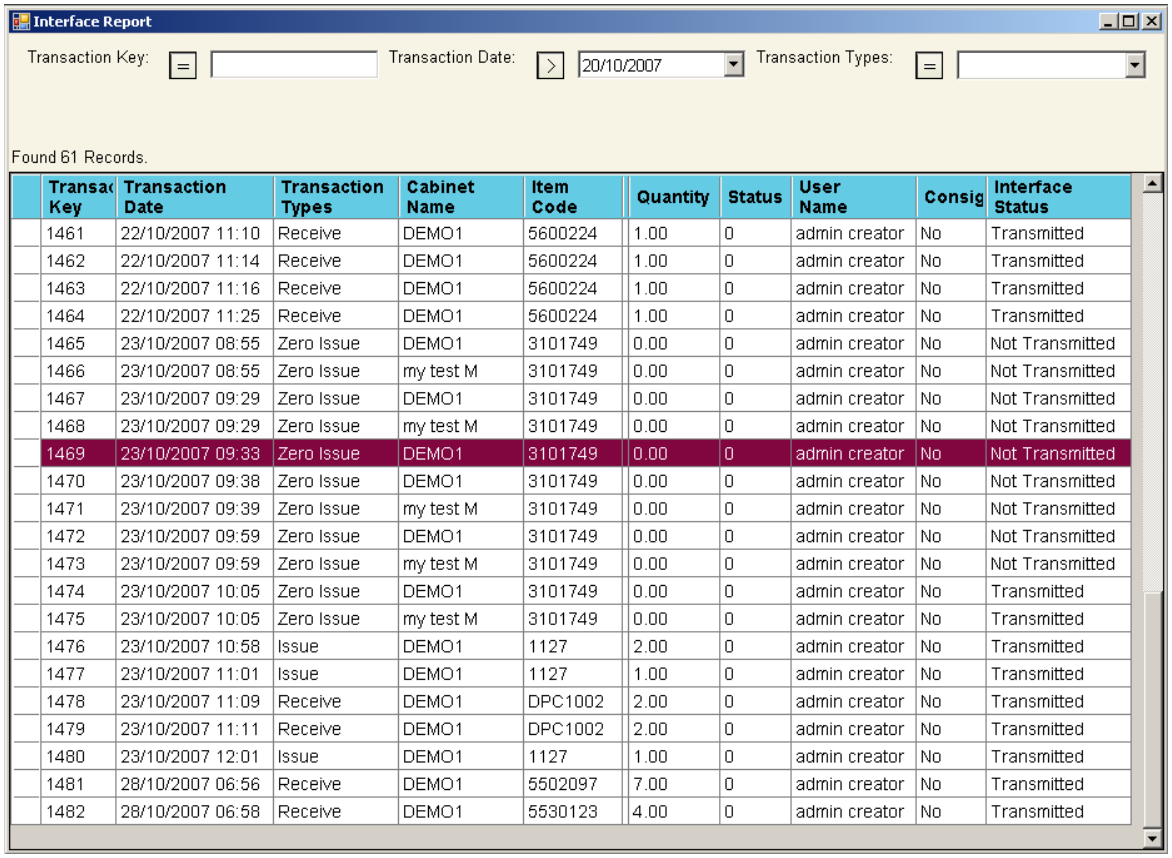


24.3 Interface Results Report

The report displays all the transactions that were transmitted or that were attempted to be transmitted.

Open "Menu: Administration → Interfaces → Interface Report".

The following screen will be displayed:



Transac Key	Transaction Date	Transaction Types	Cabinet Name	Item Code	Quantity	Status	User Name	Consig	Interface Status
1461	22/10/2007 11:10	Receive	DEMO1	5600224	1.00	0	admin creator	No	Transmitted
1462	22/10/2007 11:14	Receive	DEMO1	5600224	1.00	0	admin creator	No	Transmitted
1463	22/10/2007 11:16	Receive	DEMO1	5600224	1.00	0	admin creator	No	Transmitted
1464	22/10/2007 11:25	Receive	DEMO1	5600224	1.00	0	admin creator	No	Transmitted
1465	23/10/2007 08:55	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1466	23/10/2007 08:55	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Not Transmitted
1467	23/10/2007 09:29	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1468	23/10/2007 09:29	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Not Transmitted
1469	23/10/2007 09:33	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1470	23/10/2007 09:38	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1471	23/10/2007 09:39	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Not Transmitted
1472	23/10/2007 09:59	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Not Transmitted
1473	23/10/2007 09:59	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Not Transmitted
1474	23/10/2007 10:05	Zero Issue	DEMO1	3101749	0.00	0	admin creator	No	Transmitted
1475	23/10/2007 10:05	Zero Issue	my test M	3101749	0.00	0	admin creator	No	Transmitted
1476	23/10/2007 10:58	Issue	DEMO1	1127	2.00	0	admin creator	No	Transmitted
1477	23/10/2007 11:01	Issue	DEMO1	1127	1.00	0	admin creator	No	Transmitted
1478	23/10/2007 11:09	Receive	DEMO1	DPC1002	2.00	0	admin creator	No	Transmitted
1479	23/10/2007 11:11	Receive	DEMO1	DPC1002	2.00	0	admin creator	No	Transmitted
1480	23/10/2007 12:01	Issue	DEMO1	1127	1.00	0	admin creator	No	Transmitted
1481	28/10/2007 06:56	Receive	DEMO1	5502097	7.00	0	admin creator	No	Transmitted
1482	28/10/2007 06:58	Receive	DEMO1	5530123	4.00	0	admin creator	No	Transmitted

Interface Statuses:

Error in Transmitted (E): The transaction attempted to transmit, but failed. Check the interface connection definitions.

Transmitted (C): The transaction was successfully transmitted or assigned as transmitted by update of database *.

Not Transmitted (N): The transaction was not yet transmitted or will not be transmitted at all.



Note: When the Matrix Database is updated to MATRIX-TM version 4, all the existing transactions are updated to status **'Transmitted'** in order not to transmit all the old transactions.

CHAPTER E: DATABASE ADMINISTRATION

25 Database Administration

MATRIX-TM Database Administration is a very powerful yet easy to use tool that lets you do different activities on your database.

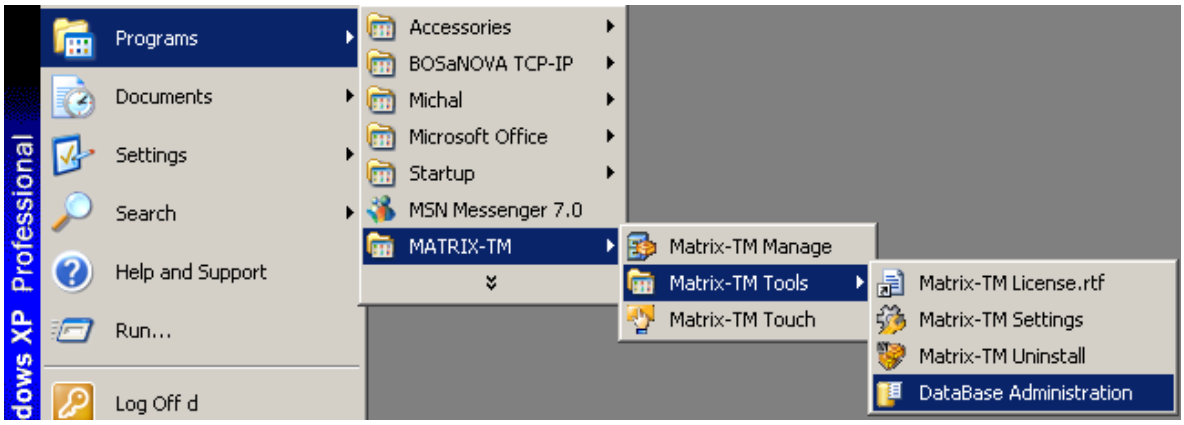
We strongly recommend that this option will be used only by the system administrator who has a good knowledge of MATRIX-TM and this application as well as an understanding about databases.

Following are the activities you can perform with Database Administration:

- Backup your Database to a file or send it via e-mail
- Restore a Database Previously backed up
- Activate a job which is stored on the server
- Change the Server Password or create a Server Password
- Run stock balance procedures which reconcile all stock levels
- Restore Database defaults from the last version installed
- Reset Admin Password
- Send or Delete Logs
- Create replications with all needed parameters
- Run important Utilities
- Run SQL scripts
- Display the process history which was recently run

Entering Database Administration:

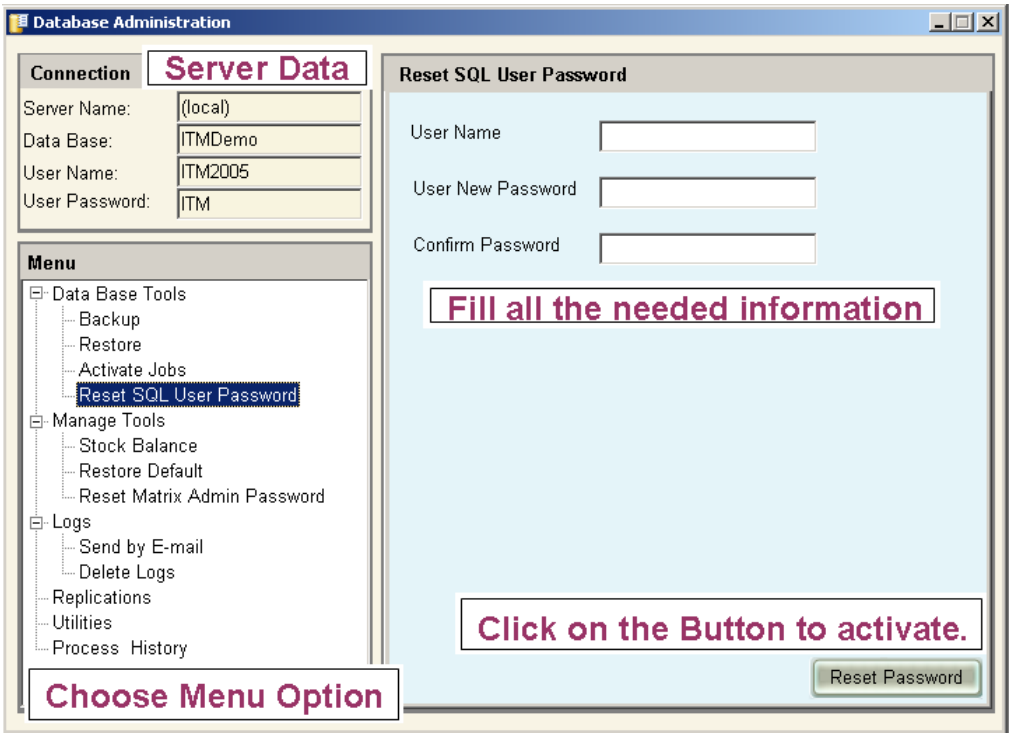
Go to: Start Menu → MATRIX-TM → MATRIX-TM Tools → Database Administration



Once you get to the User and Password screen, insert the same password and user code you received for downloading MATRIX-TM from the web.

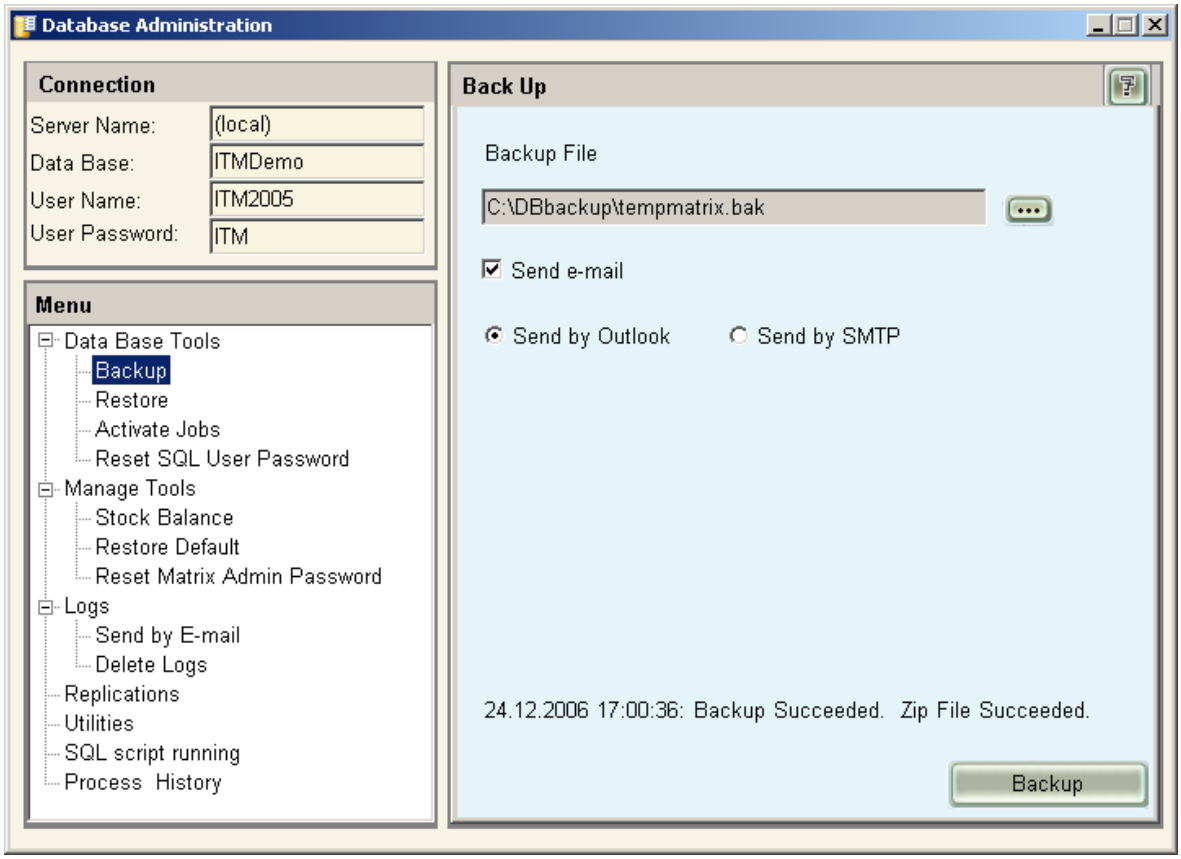
Activating a command:

- Click the mouse on the desired option in the menu
- In the Option parameter area fill the missing data
- Activate the option button to activate the option



25.1 Backup of the Database

This option lets you backup your Database to a file on the disk and to attach it to a mail.
Use the email option when you are asked to send the copy of database to support.
If you want to backup the database to a file, you need to choose the file name.



Note: The Database which will be backed-up is the database selected in the "Setting" program. A backup will also create a transaction which you can track in the Process History option.

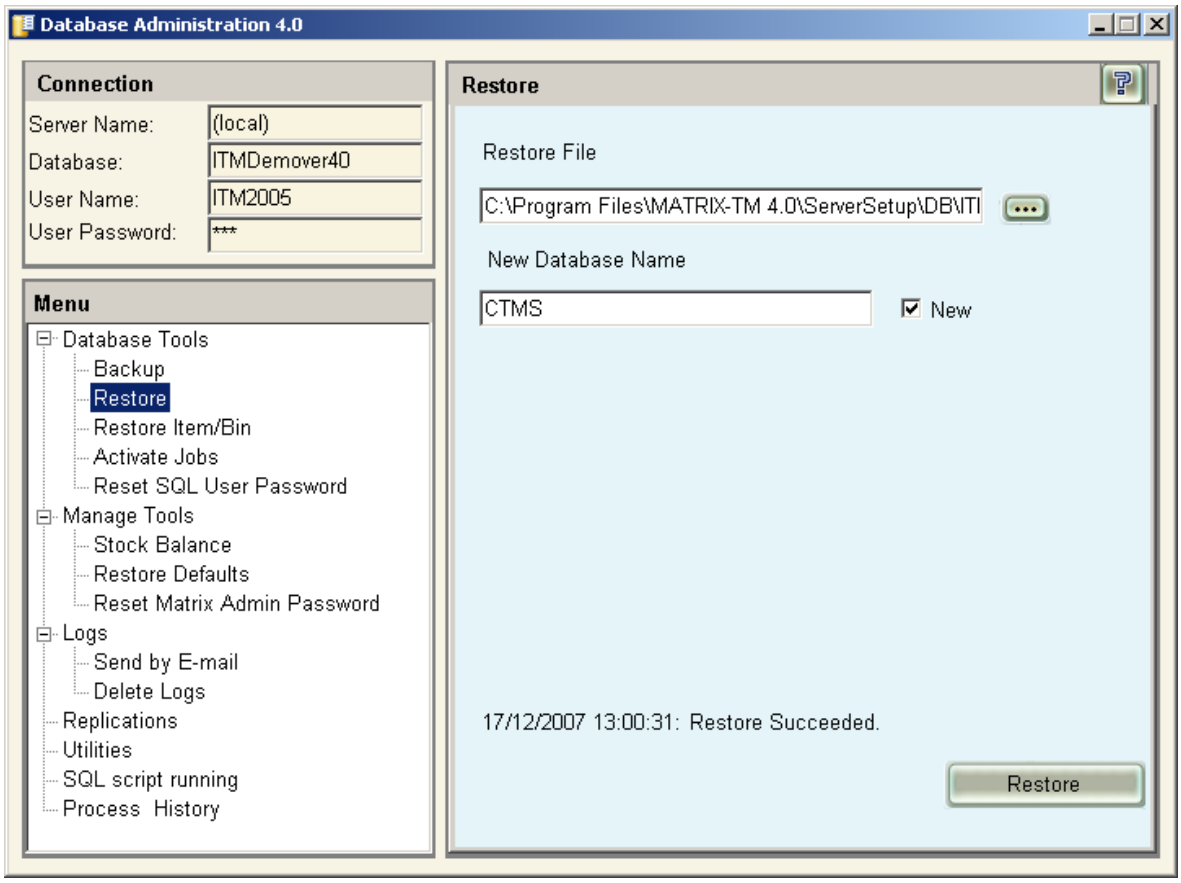
Use the **<Backup>** button to activate the command.

25.2 Restoring the Database

The 'Restore' option lets you to restore a database from backup file (*.bak).

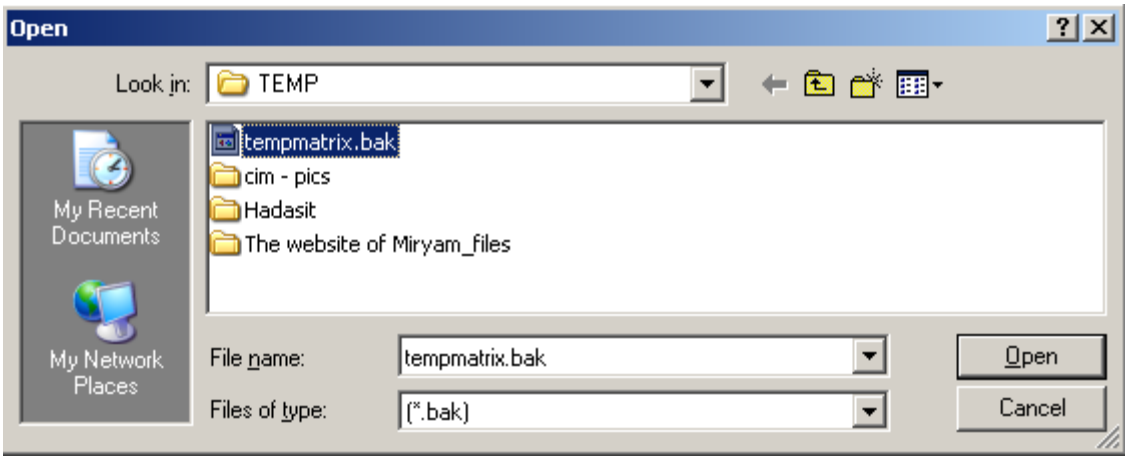
Use this option when there is a need:

- To create a new and empty MATRIX-TM database.
- To restore a database that was previously backed up into a new or existing database.

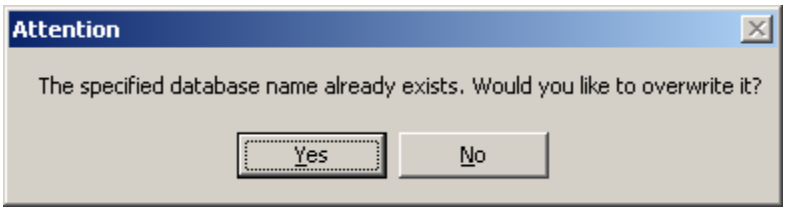


To restore database:

1. Select 'Restore' option from the Menu.
2. Click the <…> button to open windows browser.



3. To create a new and empty MATRIX-TM database, select the following file:
   "…MATRIX Installation folder\ServerSetup\DB\ITM.bak"
   Otherwise select any other database backup file (*.bak) from which to restore the data.
4. The data from the backup file will be restored into the database displayed in the 'Connection' details (as selected in the "Settings" program).
   If you want to restore the file into a different database, check the "New" box and insert a new name into "New Database name" field.
5. Click the **<Restore>** button to activate the restore.
   If you selected to restore the data into existing database, the following message will be displayed:



   Carefully select if to overwrite the database or to restore it to another database.

At this point, the database will be restored and notify about the restore status.

Important! The Restore operation will also create jobs according to the definitions in the restored database. Please take it into account when restoring temporary databases – it might send emails with orders and reports if the jobs are set to create them. It is strongly recommended to delete the unnecessary jobs as described in Chapter E: **Activate Jobs** (section 25.3).

Note: A restore will also create a transaction which you can track in the 'Process History' option.

To check the restored database, set the **Settings** program to the created database and login to the **Manage** module.

25.3 Activate Jobs

A job is a series of commands designed to do a certain task. Jobs are stored on a **server level** and usually activated **automatically** by the operating system.

25.3.1 Jobs in MATRIX-TM

MATRIX-TM software creates five different types of jobs in order to enable automatic processes, such as creating automatic purchase orders, sending reports etc. The jobs are **automatically** activated while being created and they will normally be run automatically by the operating system at the scheduled time.
The 'Activate Jobs' option in the 'Database Administration' tool enables activating a job **manually** or deleting it from the server. Please use this option carefully!

The five types of jobs are:
1) [DBName]**EndOfMonthProcess**:
This job is responsible for the automatic running of the **Monthly Process**.
The job is created by changing system options **304** / **305** in the Manage module and activated automatically at the time scheduled in these system options.
See more in Chapter D: Monthly Process (section 21.1).

2) [DBName]**ReportsEngine**:
This job is responsible for the automatic running of the **Scheduled Reports and Interfaces**.

The job is created by changing system option **209** in the Manage module and activated automatically every hour.
See more in Chapter D: Report Scheduler (section 23) and Chapter D: Interfaces (section 24).

3) [DBName]**AutoPOService**:
This job is responsible for the automatic running of the **Automatic Orders** process.
The job is created by changing system options **807** / **209** in the Manage module and activated automatically every hour.
See more in Chapter D: Automatic PO Process (section 21.2).

4) [DBName]**AutoBackup**
This job is responsible for the **Automatic Backup** of the database.
The job is created by changing system option **600** in the Manage module and activated automatically at the time scheduled in system options **603** / **605**.

5) Replication Job:
This job is responsible for the automatic update of changes activating replication. The job name is a combination of two communicating databases and servers details. The job is created by this 'Database Administration' tool and its activation depends on the schedule definition in the Replication definitions.
See more in Chapter E: Replications (section 25.10).

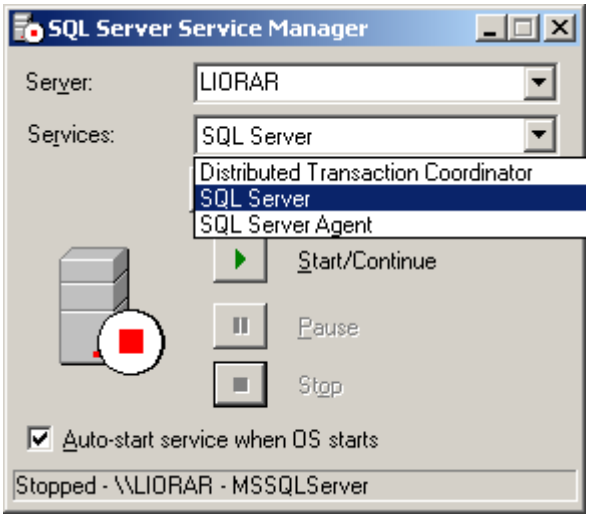
25.3.2 SQL Server Service Manager

In order to be able to run the jobs automatically or activating them manually, the 'SQL Server Service Manager' program must run and be active **on the server** where the database is located. This program is installed as a part of SQL Server installation or MSDE installation.

Follow the next steps on the server to ensure jobs activation:
1. Double-click the icon located on the Windows Taskbar as marked on the image.

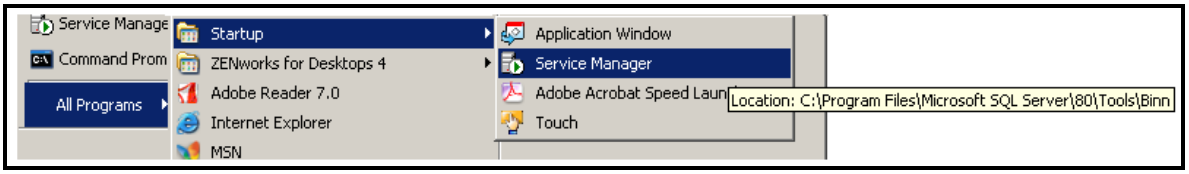


The screen as following will be displayed:



2. Select the server name in 'Server' field.
3. Check the box 'Auto-start service when OS starts' to ensure that jobs will continue to be active also if the server is restarted.

   This should locate the link to 'Service Manager' in the Windows Startup menu as on the following screen:



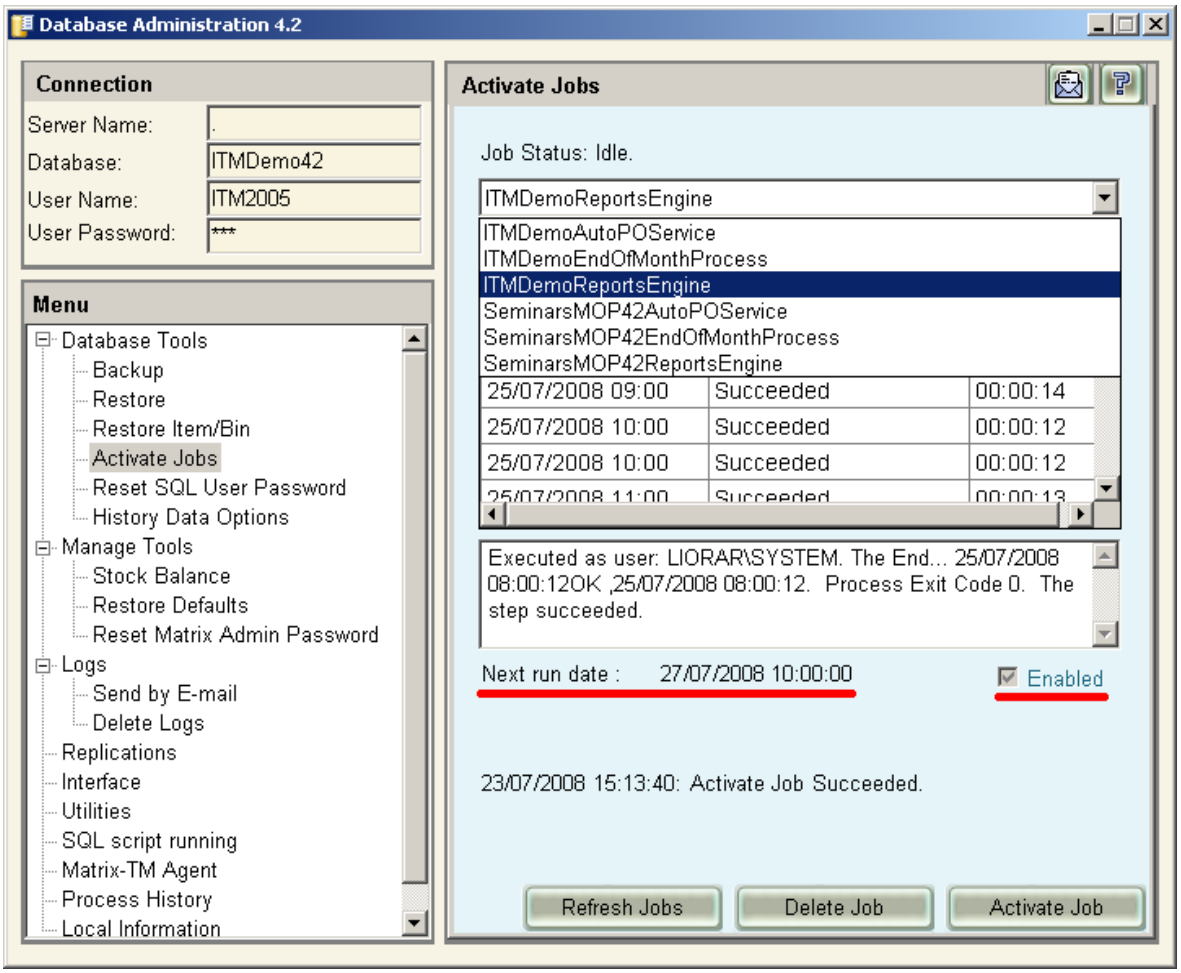
4. In the 'Services' field select **'SQL Server'**. If the service was not activated yet, click on the 'Start/Continue' arrow to activate the service and wait until it is ready.
5. In the 'Services' field select **'SQL Server Agent'**. If the service was not activated yet, click on the 'Start/Continue' arrow to activate the service and wait until it is ready.
6. Close the program. The icon of the services on the Taskbar will have a green arrow. If so, the services will be active and the jobs will automatically run.

25.3.3 Viewing and Activating Job

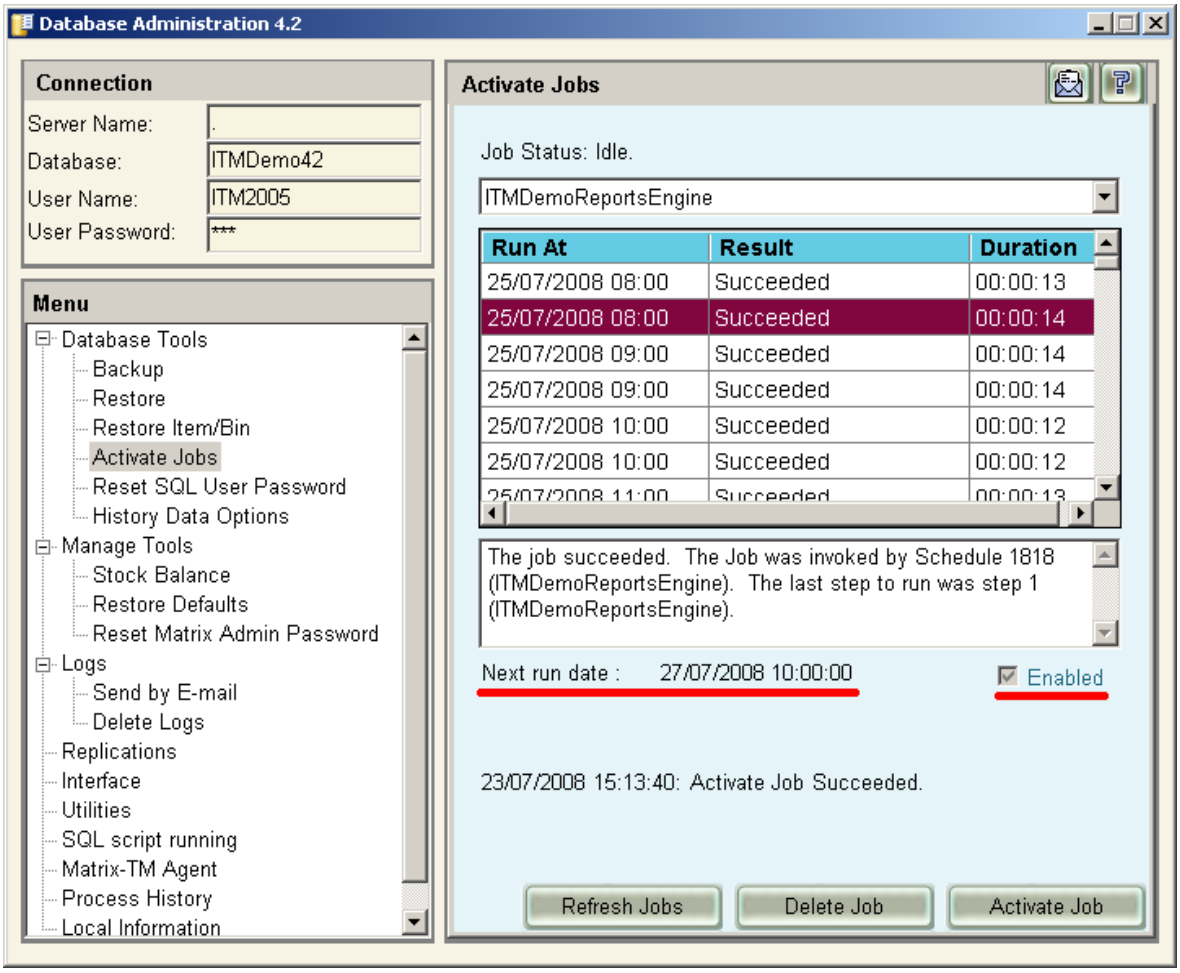
MATRIX-TM shows the jobs in the following screen.

Be sure that you understand exactly what the functions of a job are prior to running it.

1. Select the 'Activate Jobs' option from the Menu. The combo box above the grid will display all the existing jobs. If you do not find the expected job, you can create the job by following the instructions above about the job types and then clicking the <Refresh Jobs> button to refresh the list.



2. Select the desired job from the list. This will display in the grid a list of steps of job run progress and under the grid it will display if this job is currently enabled and the date/time of the next run. Clicking on step will display detailed results below the grid.



You can delete the selected job by clicking <Delete Job> button and recreating it, if needed. Please use this option carefully!

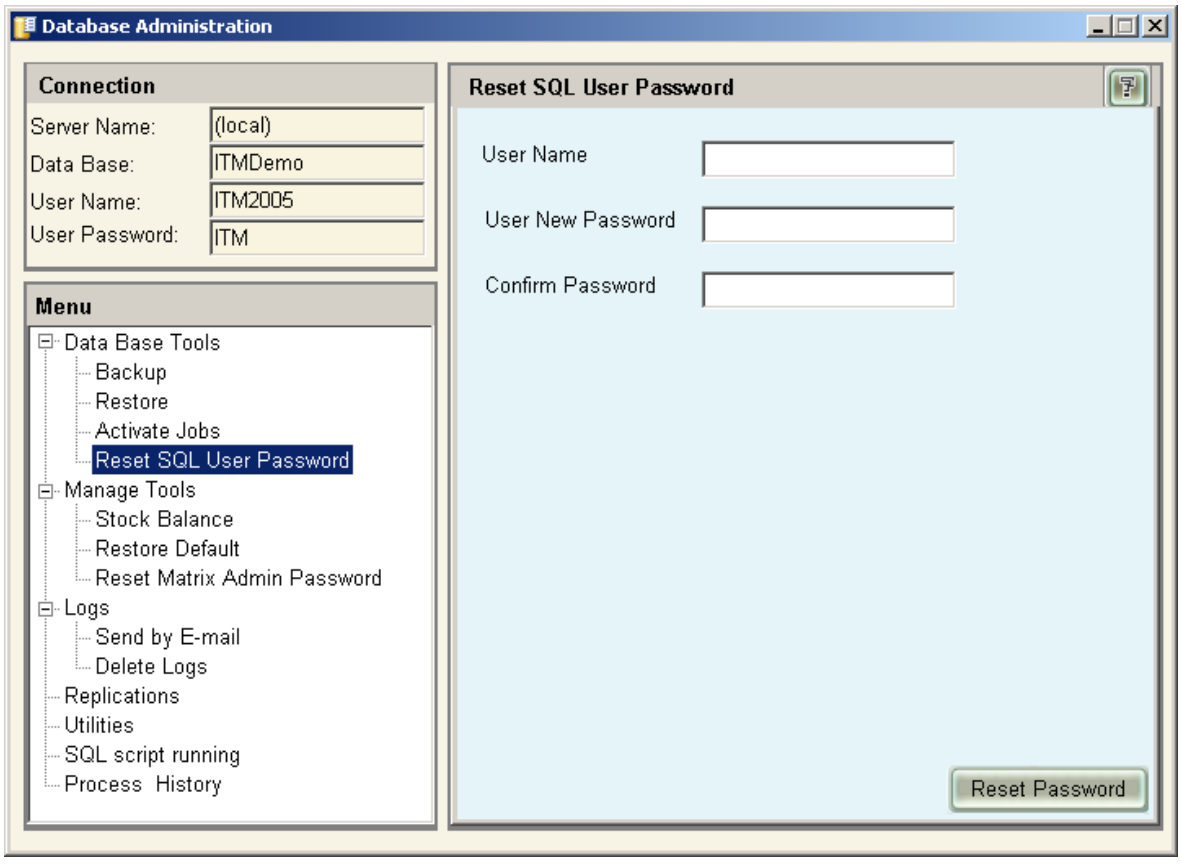
3. Since the jobs are automatically activated while being created and they will mostly run automatically by the operating system **at the scheduled time**, there is no need to activate them manually. If you still need to run the job manually at a specific time, click the <Activate Job> button.

You can email the detailed results of each step by clicking on the email button. This will concentrate all the results into one text and will transfer it to the screen that enables sending email (as described in Chapter E: Send Logs by Email (section 25.8). Use this option when you are asked to send the results to support.

Important! It is strongly recommended to delete the unnecessary jobs – it might send emails with orders and reports if the jobs are set to create them.

25.4 Reset SQL User Password

Use this option in order to Change the Server Password or create a Server User and Password. This user is used to access the server for installation.



Use the **<Reset Password>** button to activate the command.

25.5 Stock Balance

The 'Stock Balance' option is a special error handling and it should be used only after you get advice from system support.



Important! After running this option, the changes will be irreversible.

Activate this option only in special cases, where there was a problem detected with stock or an update for stock levels is required. This procedure will reconcile all stock levels, starting from the Bin, summing up to Item-Cabinet and then to the Item level for the database displayed in the 'Connection' details (as selected in the "Settings" program).

Use the **<Stock Balance>** button to activate the command.

25.6 Restore Defaults

The 'Restore Defaults' option makes the following:

Restores defaults:

Restore defaults as following:

- To restore texts for all the languages supported.
- To restore default settings to the objects, for example search screen definitions (sorting and replaced columns), etc.

Updates database:

Update database from old version in order to make it compatible with the latest version of the MATRIX-TM software. The updates are done according to:

- Changes in Data structures, such as fields and tables
- Changes in System options
- Changes in Views and Stored procedures
- More definitions which reside in the database

If the database version (the value of **System Option 0** (Database Version)) is the same as the version of the current installation, then this option will only restore the defaults.

Otherwise, this option will run a full update of the database including restore of defaults.

Important! This command **will not** change any of your data like items, bins, users etc.

Note: This update is identical to the Update process during server installation.

Important! After running the 'Restore Defaults' option, the changes will be irreversible. It is strongly recommended to backup the database before using this option.

Important! The 'Restore Defaults' option restores the default values from the **ITMDemo** database to the database displayed in the 'Connection' details. Therefore for successful restore, you must have the ITMDemo database on the same server.
(This database is installed automatically when selecting 'Server' option in the installation process).

Note: The restore to **ITMDemo** database and **Replicated** databases is blocked in order to avoid undesired changes and information loss.

After reading carefully the explanations above, ensure that the desired database is displayed in the 'Connection' details and use the **<Default Restore>** button to activate the command.

25.7 Reset MATRIX Admin Password

This option resets the password of user **admin** to the initial password.
If no such user will be found in the database displayed in 'Connection' details, no reset will be done.

Use the **<Reset Password>** button to activate the command.

25.8 Send Logs by Email

Sometimes you need to send the system logs to support. This option will attach the logs to an email and send them.

The following fields should be filled-in:

Server: SMTP server which sends the email.

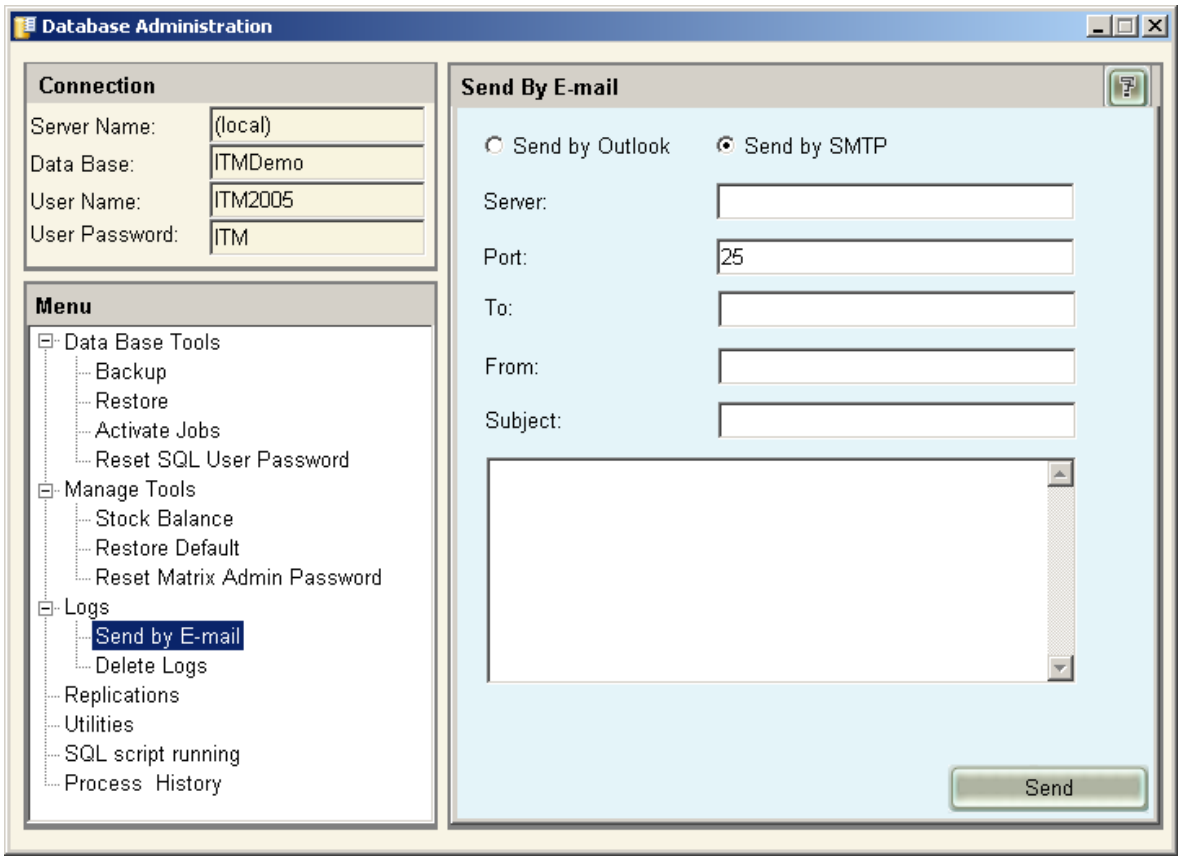
Port: Used port for SMTP, usually 25.

To: To whom you want to send the email.

From: Who is sending the logs.

Subject: Subject of email.

Message body: Free text



Use the **<Send>** button to activate the command.

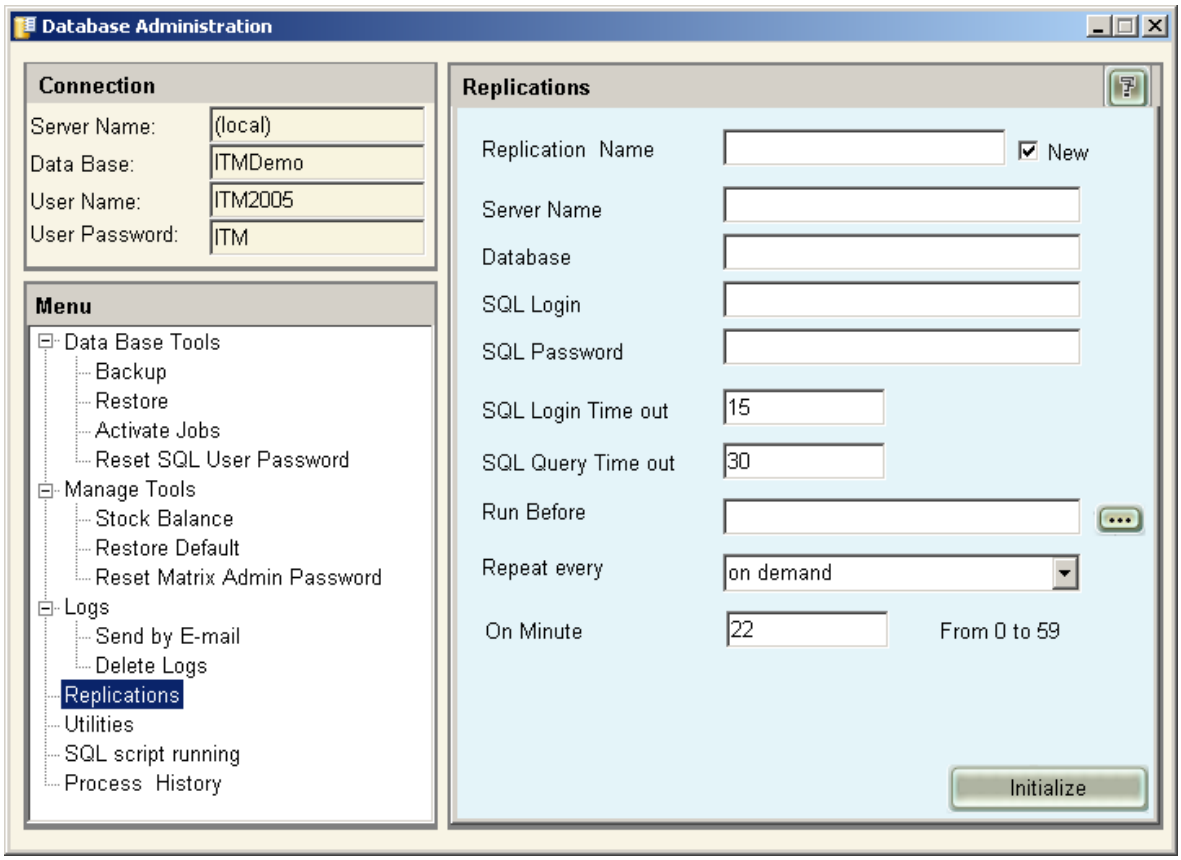
25.9 Delete Logs

Use this command to clear all the logs.

Use the **<Delete Logs>** button to activate the command.

25.10 Replications

A Database replication is an active copy between two or more Databases. That means that any change in one Database will cause the same change in the other replicated Database. This option lets you prepare the parameters for creating a replication. We suggest that you contact support prior to activating a replication.



Fields description:

Replication Name: Local replicated database whose replication options are edited. Create a new database name (not ITMDemo, Master, MSDB, Model and tempdb).

New (check box): Mark this to create a new replicated database. If a database with the same name already exists, it will be replaced.

Server Name: Publisher/Distributor (remote) server.

Database: The published database on the Publisher/Distributor to replicate.

SQL Login: Login name for the published database.

SQL Password: Login password for the published database.

SQL Login Timeout: The number of seconds before the login times out (the default is 15 seconds). Do not change this unless you are getting repeated errors replicating.

SQL Query Timeout: The number of seconds before the query times out (the default is 30 seconds). Do not change this unless you are getting repeated errors replicating.

Run Before: Select a program to run before the replication sync starts. This is an optional value.

Run After: Select a program to run after the replication sync is completed. This is an optional value.

Repeat Every: How frequent the sync occurs (On demand, every 1/2 hour, every 1 hour, every 6 hours).

On Minute: The minute in each hour that the sync begins. Default is random number between 0 and 59 (to distribute the load of the publisher) but you can also set your own value.

Note: Once replication is saved, it is impossible to change the Replication Name, Server Name and published Database. To do so, you will need to create a new subscription, overwriting the current one.

Use the **<Initialize>** button to start the replication.

- Switch to the "Activate Jobs" section
- Find a new job containing the new database name and activate it.
- When the job ends, run the Settings program and set it to the new database

Now you are ready to run the Matrix-TM applications.

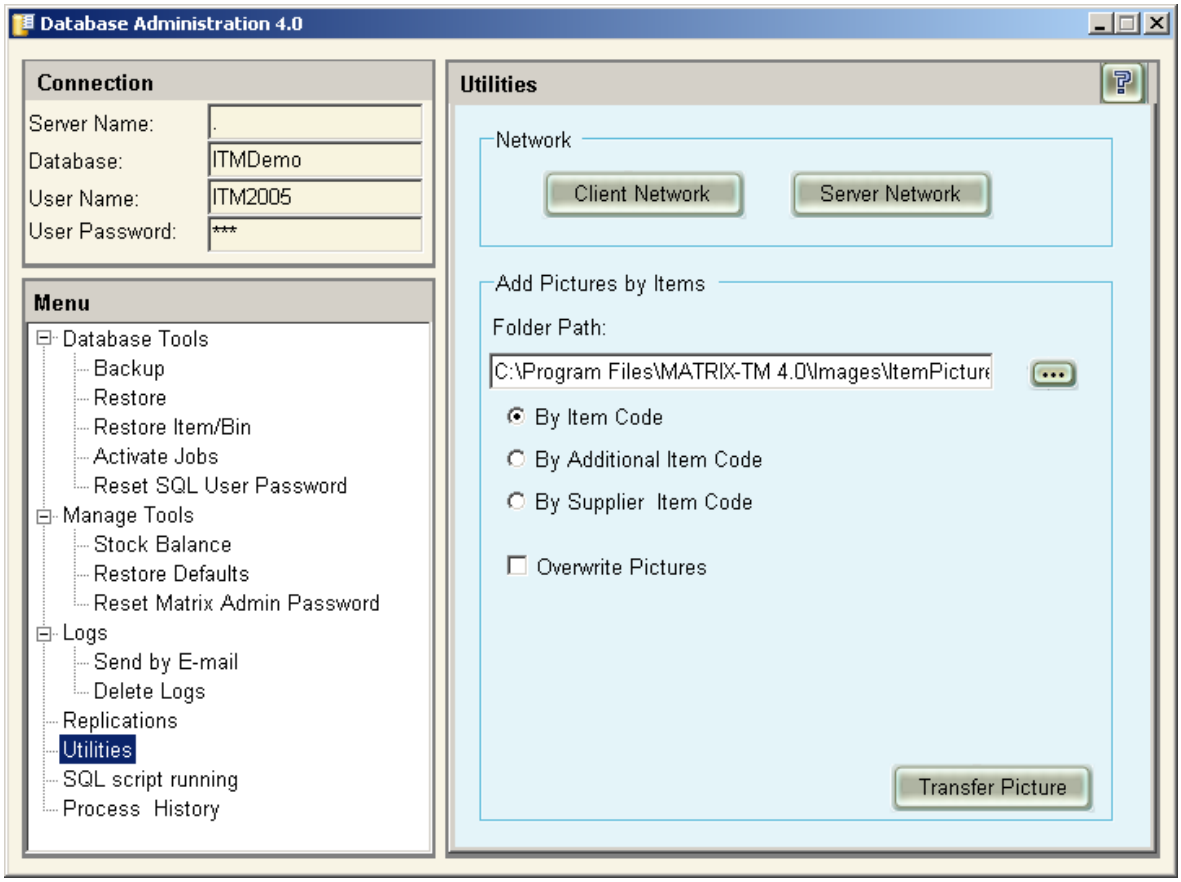
25.11 Utilities

Network:

These utilities are used in order to define the ports used for client and server. For the creation of replication the client network program is needed.

These utilities will be needed only in special cases.

If unclear, consult support regarding when these utilities are needed.



Add Pictures by Items:

Another utility available is to load image files of the items, in order to make them available for display in the **Manage** and **Touch** modules. To load the files properly, all the files must be named exactly as **Item Code** or as **Additional Item Code** or as primary **Supplier Item Code** with the extension defined in the Manage module (system option **204**).

To transfer the image files:

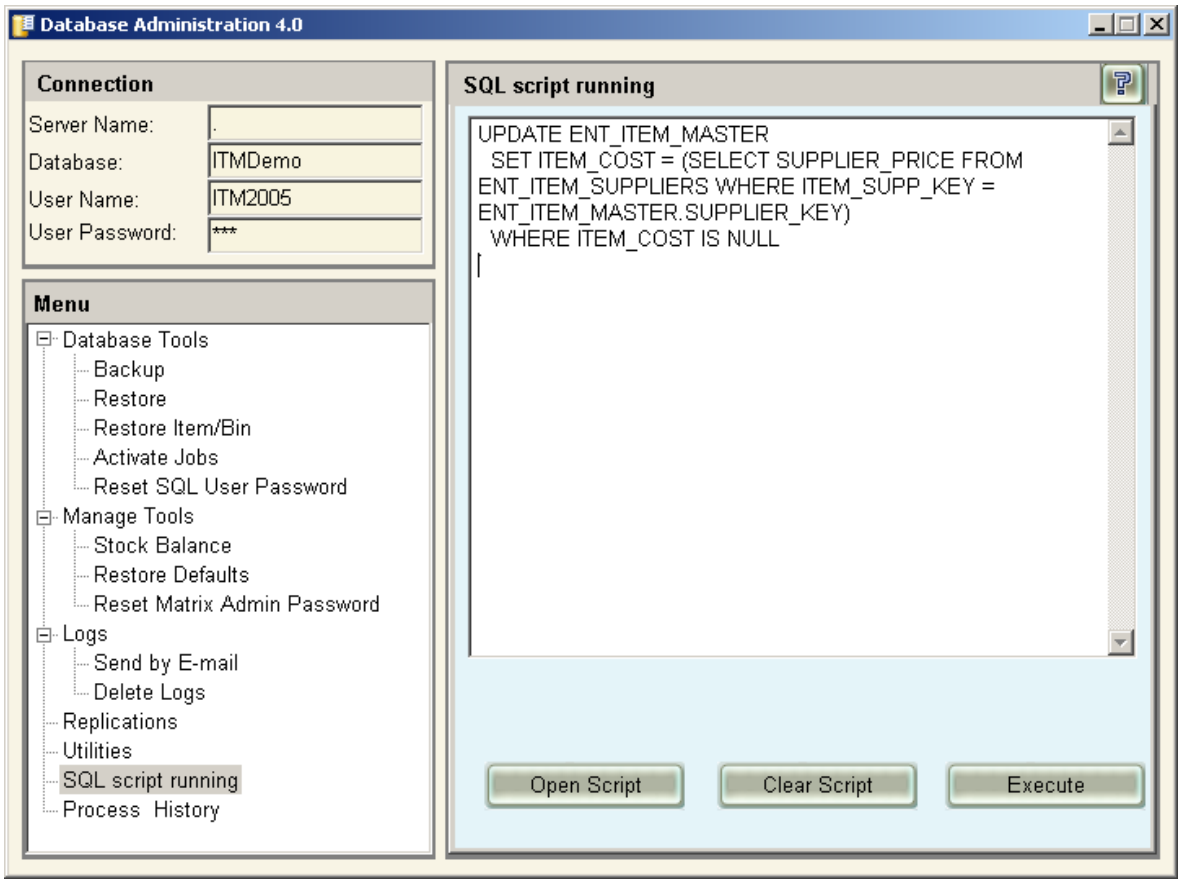
1. In the Manage module set the System Option **400** (Item Pictures path) to the folder that should contain item image files.
2. Verify that all the files that you wish to transfer are named by **Item Code** or by **Additional Item Code** or by **Supplier Item Code** and with extension as defined in System Option **204** (Picture File Type).
3. In the 'Folder Path' select the folder that contains all the image files.
4. Select one of the three options by which the files are named. For example, if the files are named by 'Additional Item Code', then select this option.
5. Check the 'Overwrite Pictures' option to overwrite the files on the destined folder, if they exist.
6. Click the <Transfer Picture> button to execute the transfer.
   The program will scan the info of each item from the database defined in 'Connection' details and will search for a compatible image file in the folder defined in 'Folder Path'. If a match was found, the file will be copied to the folder defined in system option 400 and respectively renamed by **Item Code** (in order to display the image in Manage and Touch modules, the system uses Item Codes only).
   For example: If you selected the 'Additional Item Code' option, then the program will take the Additional Item Code of item and will search for an image file with the compatible name. If a match was found, the file will be copied and respectively renamed by **Item Code** of that item.

25.12 SQL Script Running

The 'SQL script running' option enables editing SQL commands in order to execute them on the databases. Use this command to run SQL script.

By clicking the <Open Script> button, you can find script files installed together with the software or browse for any other script.

Please use this command carefully as it might massively change the database.



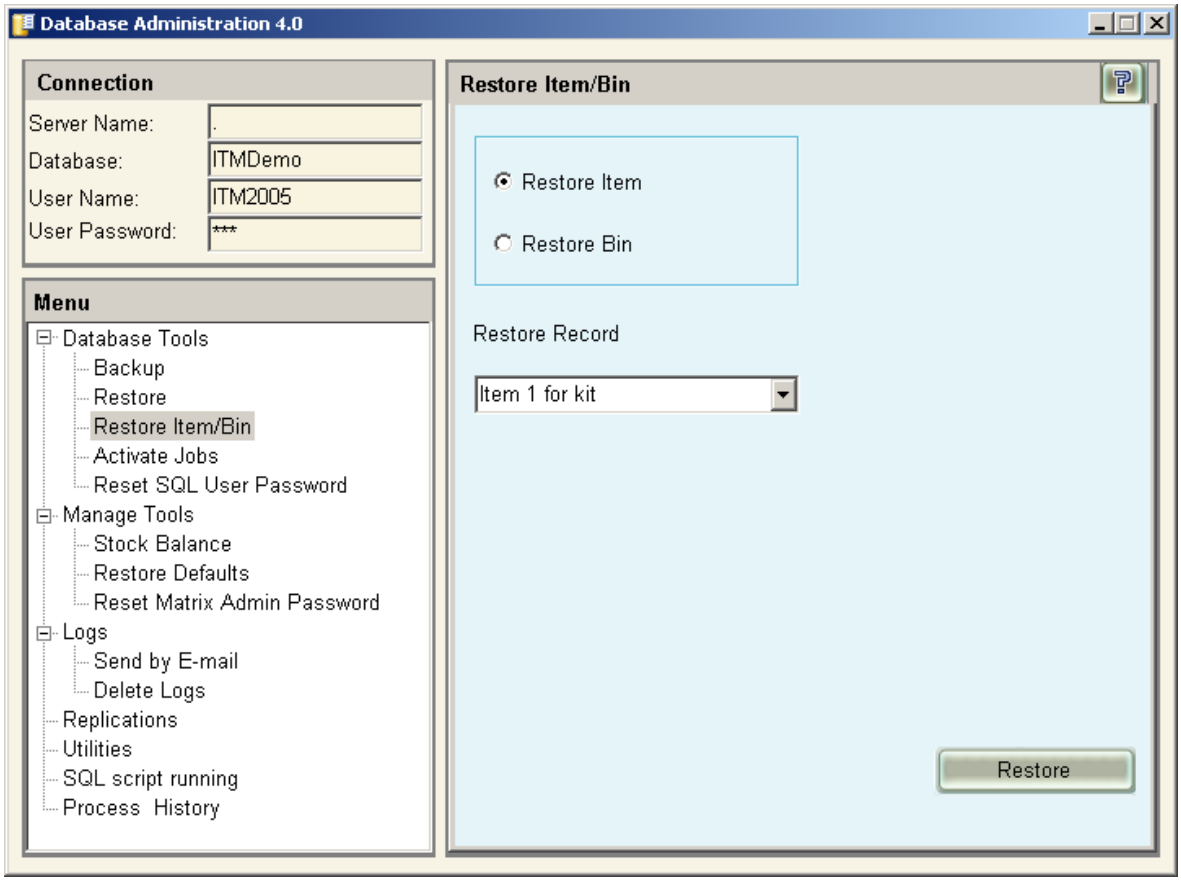
Use the **<Execute>** button to activate the command.

25.13 Process History

Process History will show you all the transactions which where done by Database administration, creating a log of activities, letting you track when the last backup or restore were made etc.

25.14 Restore Item/Bin

This option enables restoring an Item or Bin that was previously removed by Manage module.

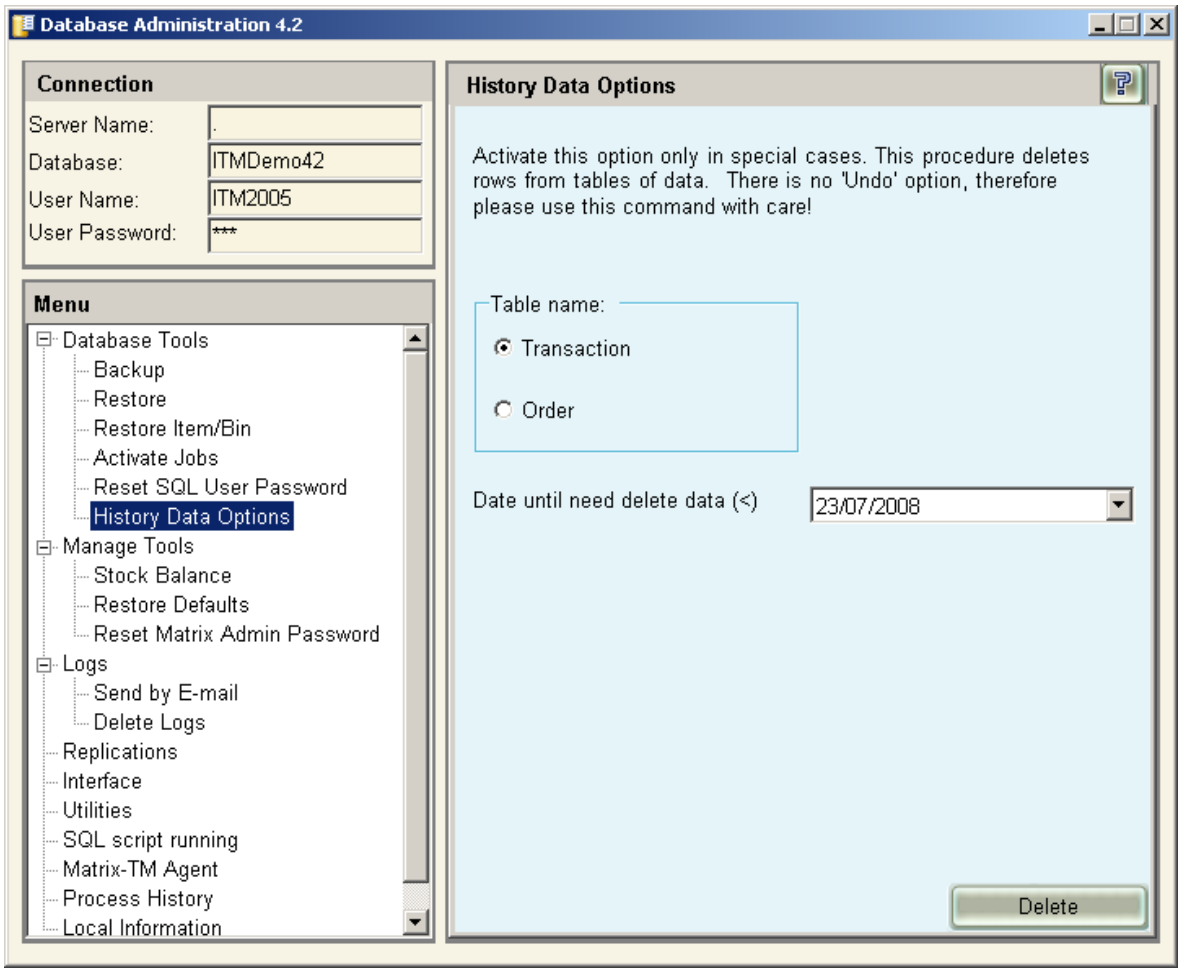


Use the **<Restore>** button to restore the record.

25.15 History Data Options

This option enables to delete history of Orders in status 'Closed' with order date earlier than the selected date and Transactions with transaction date earlier than the selected date.

Please consider backing-up the database before delete – this is irreversible operation!



Use the **<Delete>** button to delete the records.

CHAPTER F: Summaries

This chapter describes workflows for few common processes, troubleshooting in the MATRIX-TM system and general instructions for their resolution with references to the full description in this user guide.

26 Common Processes

To be ready to operate a Matrix cabinet it usually requires creating a new and empty database and then creating the initial data, such as cabinet configuration, items, users etc. This section describes a few standard steps that need to be carried out and references to the full descriptions.

26.1 How to Create New Database

This section describes how to create a new and empty database.

If you have already installed the Matrix software:

1. Login to the 'Database Administration' program
2. Select 'Restore' option and create a new empty database under new database name by restoring from the following file:
   `"…MATRIX Installation folder\ServerSetup\DB\ITM.bak"`
   For more details read the Chapter E: Restoring the Database (section 25.2).

If you have not installed the Matrix software yet:

1. Install the required software components before installing Matrix software:
   - Microsoft .Net Framework 2.0 and;
   - MSDE as described in Chapter A: Install MSDE (section 2.3)
2. Install full Matrix-TM software (Server, Manage and Touch modules) as described in Chapter A: Install MATRIX-TM Setup (section 2.4) and at the step of installing database, select the option 'New Database' and insert the database name.

26.2 How to Create Initial Data in the Database

This section describes the steps for creating the initial data for the new database (such as cabinet configuration, items, users) in order to be ready to operate the Matrix cabinet.

On the workstation for building the database:

1. In the **Settings** program set the software to the previously created database.
   Read more in Chapter A: Connect to the Database (section 3.1).
2. Load Manage module and login to the database.
   Read more in Chapter A: Login to MANAGE module (section 3.2.1).
3. Create a cabinet/s with compatible configuration.
   Read more in Chapter A: Cabinet (section 5.2)
4. Create manually the following data:
   - User Groups (follow Chapter D: Group of Users (section 18.1))
   - Cost Center Headers (follow Chapter D: Add Cost Center Header (section 19.1))
5. Import data into the database by following the Chapter D: Import Data (section 22).
   - Import Users
   - Import Suppliers
   - Import Item Groups
   - Import Items
   - Import Cost Center Details
   - Import Bins



Note: It is not mandatory to import at this stage all the data described above. You can import this data later or add it manually. Therefore consider this as a recommendation only.

6. Back up the database into file to prepare for restore on the destined server.
   Read more in Chapter E: Backup of the Database (section 25.1).

26.3 How to Operate the Database

This section describes all the required software components and definitions in order to operate Matrix cabinet.

On the destination server:

1. Install Matrix-TM software.
   Read more in Chapter A: Install MATRIX-TM Setup (section 2.4).
2. Restore the Database from the previously backed-up file using 'Database Administration'.
   Read more in Chapter E: Restoring the Database (section 25.2).
3. On the **Settings** program set the software to the previously restored database.
   Read more in Chapter A: Connect to the Database (section 3.1).
4. Create TOUCH definitions using Manage module.
   Read more in Chapter A: Set TOUCH Definitions (section 3.2.6).
5. Create the required jobs using Manage and remove all the unnecessary jobs using 'Database Administration'.
   Read more in Chapter E: Activate Jobs (section 25.3).
6. Verify that the Installation Path defined in the System Option 1 in restored database meets with the folder containing the MATRIX-TM files. If not, update the system option, in spite of the comment not to change it.
7. Make sure that the access to the server is available by Firewall settings in order to allow other Matrix workstations to use the database.
   Firewall settings: Open Control Panel → Windows Firewall → on the 'General' tab switch OFF the firewall or; switch ON and add port number 1433 on the 'Exceptions' tab.
8. If you use a cabinet PC as a server, you are ready to load TOUCH.
   If you run Database and Touch on different computers, then on the cabinet PC install all the required software as well, connect to the database server by making definitions on the **Settings** program and load the TOUCH module.

Extra settings:

9. If you have image files for the Items and Item Groups, set the system option **400** (Item Pictures path) and the system option **404** (Group Pictures path) and locate respectively the image files. Read more in:
   - Chapter B: Add Images to Items (section 5.4.5)
   - Chapter D: Add Images to Item Groups (section 16.3.1)
   - Chapter E: Utilities (section 25.11)

26.4 How to Upgrade the Software and Database

When there is a new Matrix version released, you may want to upgrade the software with the new version. To do this, follow the instructions below:

On the computer with the Server installation (with the database):
Note down the Database Name that you are working with for the steps after installation. You can check the database name by opening the 'Settings' program from **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → Matrix-TM Settings** (as also described in Chapter A: Connect to the Database (section 3.1).

1. Login to the 'Database Administration' program and Backup the database into file as described in Chapter E: Backup of the Database (section 25.1). This will guarantee the data is saved before making changes and in case any problem happens during the upgrade, you can always go back to the previous version by restoring the database from the backed-up file until finding a solution for the failure.
2. Remove the existing Matrix software installation by selecting **Windows Start Menu → Programs → MATRIX-TM → MATRIX-TM Tools → Matrix-TM Uninstall** and following the instructions.
3. Install full Matrix-TM software (Server, Manage and Touch modules) as described in Chapter A: Install MATRIX-TM Setup (section 2.4).

Important! At the step of installing database (window 'Server Setup' with title 'Select Installation Database Name'), set the 'Database Name' of your database and select option 'Update Database'.

4. Open the 'Settings' program and set the connection to the database as also described in Chapter A: Connect to the Database (section 3.1).



Note: If running the program causes the installation program to run, cancel the step and run it again.

Now you are ready to run a new version of Matrix-TM software with an upgraded database.
Continue with the installation on the Manage stations.

On the Manage workstations:

1. Remove the existing Matrix software installation.
2. Install the Matrix-TM software as described in Chapter A: Install MATRIX-TM Setup (section 2.4) with only Manage module.
3. Open the 'Settings' program and set the connection to the database as also described in Chapter A: Connect to the Database (section 3.1).

26.5 How to Upgrade the Database to the currently installed software

If you have installed a new software version, but the database was not upgraded, you be will notified with an error message when trying to run the Manage or Touch software.

To upgrade the database, follow the next steps:

1. Make sure that you have installed the new and relevant software version.
2. Make sure that the **ITMDemo** database is compatible with the software version.
   If you can successfully run 'Manage' program with this database and login, then the database is compatible to the software. You can also check the System Option 0 (Database Version).
3. Open the 'Settings' program and set the connection to the database that you need to upgrade, as also described in Chapter A: Connect to the Database (section 3.1).
4. Login to the 'Database Administration' program and check that the 'Connection' details point to the correct database.

5. Backup the database into file as described in Chapter E: Backup of the Database (section 25.1). This will guarantee the data is saved before making changes and in case any problem happens during the upgrade, you can always go back to the previous version by restoring the database from the backed-up file until finding a solution for failure.
6. Select 'Restore Defaults' option to upgrade the database as also described in Chapter E: Restore Defaults (section 25.6).

Now you are ready to run the Manage and Touch software.



Note: It is not possible to adjust the database to the earlier versions, but only restoring the database from backed-up file which will include changes done until the time of backup.

26.6 How to Add a cabinet other than MATRIX

MATRIX-TM software supports working with Kardex and Non-Automatic warehouses as well as with the MATRIX cabinet. To build these types of cabinets:

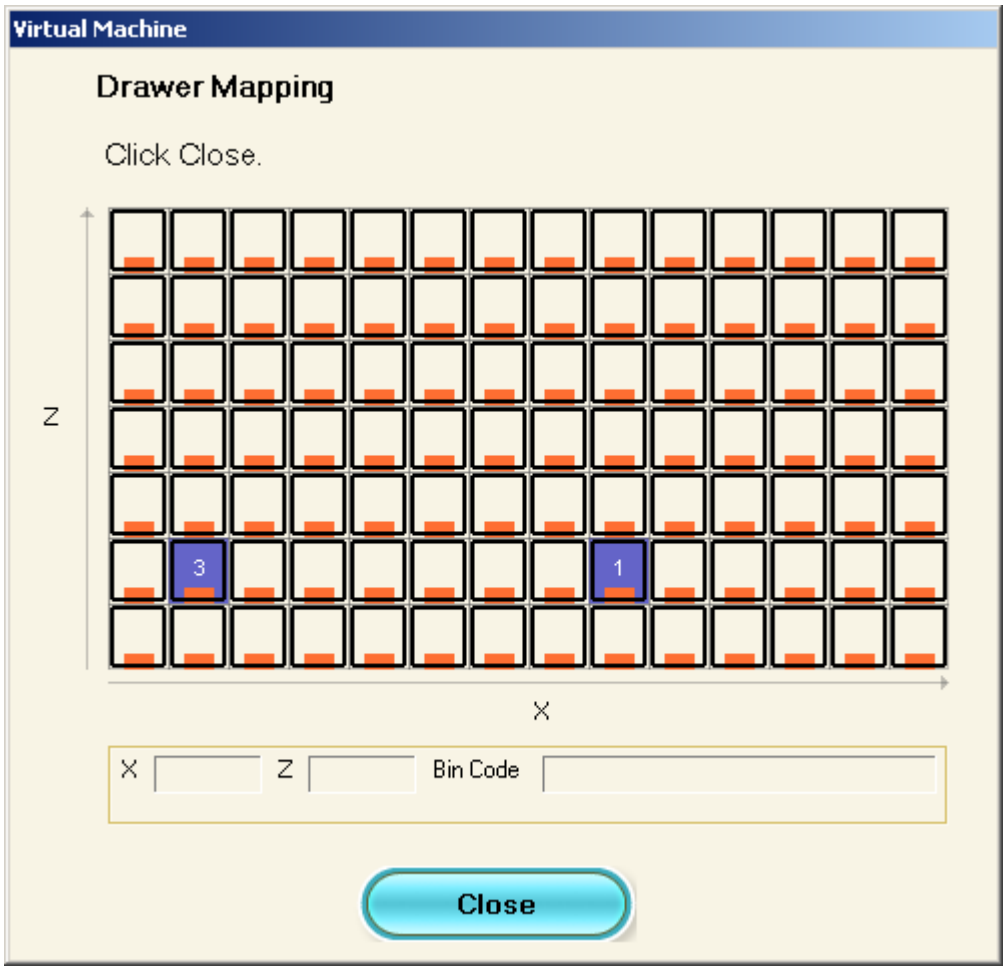
1. Follow Chapter B: Adding Drawer Types (section 5.2.3) for adding customized drawer configurations.
2. Follow Chapter B: Adding a Cabinet (section 5.2.1) for adding a warehouse of the desired type, and by 'Cabinet Units' tab and the 'Build Drawer' option to add drawers of the previously customized configurations.

All the rest of the definitions, such as connecting items to bins etc, will be identical to the definitions with a MATRIX cabinet. The difference will be in the TOUCH module when activating a command for opening bins, depending on the cabinet type:

Kardex – The command will be sent to Kardex controller and will automatically bring the tray forward without the need to request it on the Kardex control panel. When finished, the user presses the button for closing the tray on the Touch interface and the shelf returns automatically to its original position.

Non-Automatic – Instead of sending a command for opening bins, the same command will be executed virtually, simulating the open and close of a bin.

For Kardex and Non-Automatic, the popup window will display the drawer mapping to easily locate the desired bin, as on the screenshot below.



26.7 How to Add Images for Items and Item Groups

The Matrix software supports displaying images of items and item groups.

The system option **204** (Picture File Type), **400** (Item Pictures path) and **404** (Group Pictures path) are responsible for displaying the images on the Manage and Touch modules. Follow the instructions that are in:

- Chapter B: Add Images to Items (section 5.4.5)
- Chapter D: Add Images to Item Groups (section 16.3.1)
- Chapter E: Utilities (section 25.11)

26.8 How to Set Authorizations for TOUCH Users

Each module on the Touch can be controlled by authorizations given per User Group. To enable / disable / hide modules on the Main Menu (like Issue, Return etc) make the following steps:

1. In MANAGE open Authorization Manager by "Menu: Administration → Users and Authorizations → Authorization Manager".
2. Select the user group for which you want to set the authorizations and select the "Controls Authorization" tab.
3. Expand the option "*** TOUCH SYSTEM ***" and click "Main Menu". This will list all the modules in TOUCH including <Exit> button that exits the user to the operating system.
4. Make the changes and save them.

For more details about 'Authorization Manager' screen read the Chapter D: Controls Authorization (section 18.3.2).

27 Troubleshooting

27.1 Troubleshoot - Jobs of Automatic Processes

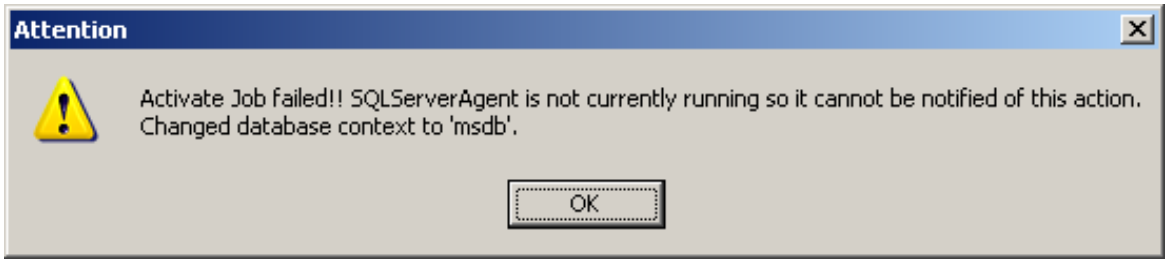
The system supports five types of jobs which are responsible for the automatic processes: [DBName]**EndOfMonthProcess**, [DBName]**ReportsEngine**, [DBName]**AutoPOService**, [DBName]**AutoBackup** and Replication Job.
This section describes potential problems working with automatic processes and jobs and the way to deal with them. If none of the solutions helps to solve the problem or the problem does not appear here, please contact support.
It is also recommended to read the instructions described in Chapter E: Activate Jobs (section 25.3) as a part of troubleshooting.

GE1001: None of the Automatic processes are running

Problem: None of the automatic processes are running.
Possible reason: The SQL Server or SQL Server Agent is not running.
Solution: Follow the instructions in Chapter E: SQL Server Service Manager (section 25.3.2).

GE1002: Error message when trying to activate jobs in Database Administration

Problem: The following message is displayed when trying to activate any job:
"Activate Job failed!! SQLServerAgent is not currently running….."


Attention
Activate Job failed!! SQLServerAgent is not currently running so it cannot be notified of this action.
Changed database context to 'msdb'.
OK

Possible reason: The SQL Server or SQL Server Agent is not running.
Solution: Follow the instructions in Chapter E: SQL Server Service Manager (section 25.3.2).

GE1003: Cannot run jobs from workstation

Problem: General failure in running jobs on the client workstation.

Possible reason: The installation of 'Server' module creates folder ServerSetup as following: …\Matrix Installation folder\ServerSetup. If this folder does not exist, the jobs that use file **ScheduleServices.exe** from that folder cannot run.

Solution: Run the jobs on the server where the database is located or;

Set the system option **1** (Installation Path) to the path of the Matrix installation on the server using server name, for example: **\\server-name**\program files\matrix-tm\ServerSetup.

GE1004: Cannot run Automatic Backup of the Database

Problem: The job [DBName]**AutoBackup** failed to run.

Possible reason: Perhaps the folder defined for the backup does not exist.

Solution: Check the system option **602** for Database Auto-Backup folder.

GE1005: Cannot delete jobs by Database Administration

Problem: When trying to delete jobs by Database Administration, general error message is displayed or message that jobs cannot be deleted because there is more than one job with the same name.

Possible reason: The jobs are created per computer name. Perhaps the computer name was changed while there were jobs existing under a previous computer name and now it cannot delete/update them.

Solution: Select the option 'SQL script running' in the Database Administration tool and run the script from the installation folder:

…\Matrix Installation folder\DBAdmin\SqlScript**DelItmJobs.sql**.

This script will force the removal of all the MATRIX-TM jobs (not including the replication job).



Recommendation: If the computer name was indeed changed, in order to avoid this problem in the future, it is recommended to remove the existing jobs prior to changing the computer name.

GE1006: Cannot update system options of automatic processes in Manage

Problem: The Manage does not save changes for the system options that are responsible for the creation of the jobs for automatic processes. [Also I cannot delete/update the jobs.]
Possible reason: By changing these system options in Manage, jobs should be created for automatic processes. Perhaps there are already jobs with wrong definitions and when Manage fails to update the existing jobs, it fails to save the system options' values as well. See also reason of GE1005.
Solution: See solution for GE1005.

GE1007: The scheduled reports are not created

Problem: The job [DBName]**ReportsEngine** does not create scheduled reports.
Possible reason: See reasons of GE1001, GE1003.
Solution: See solutions for GE1001 and GE1003. If they do not help solve the problem, try to delete and create the job again. Also check the 'Date Last Updated' field on the Report Scheduler.

GE1008: The scheduled reports are not created as a File

Problem: The scheduled reports are not created as a File.
Possible reason: The files are created into a folder defined in system option **401**, which is used for temporary files and the files which are removed from there automatically.
Solution: Check that the 'File Name' on the Report Scheduler is defined to full path and different than the path defined in system option 401.

GE1009: The scheduled reports are not received by Email

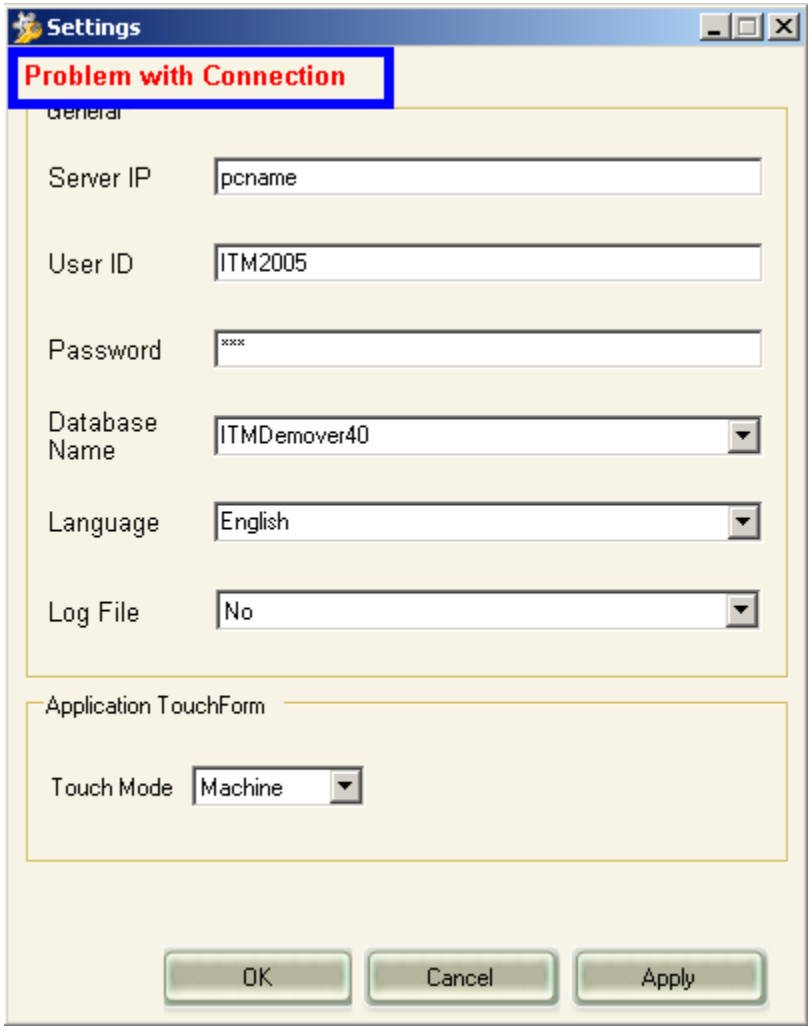
Problem: The scheduled reports are not received by Email.
Possible reason: The system options from Email group for sending emails are not set properly or; there is no email defined for the user that is supposed to receive the email.
Solution: Check the system options (701-703, 705, 707). Check that the user who is defined in the 'User Name' field on the Report Scheduler has an email address defined in his 'User Maintenance' screen.

27.2 Troubleshoot - Load of the Software

This section describes problems that might occur in loading MATRIX-TM Software.

GE2001: Error message when trying to load Manage

Problem: When trying to load Manage, I get the Settings program with the error message 'Problem with Connection' on the top, as on the attached screenshot.



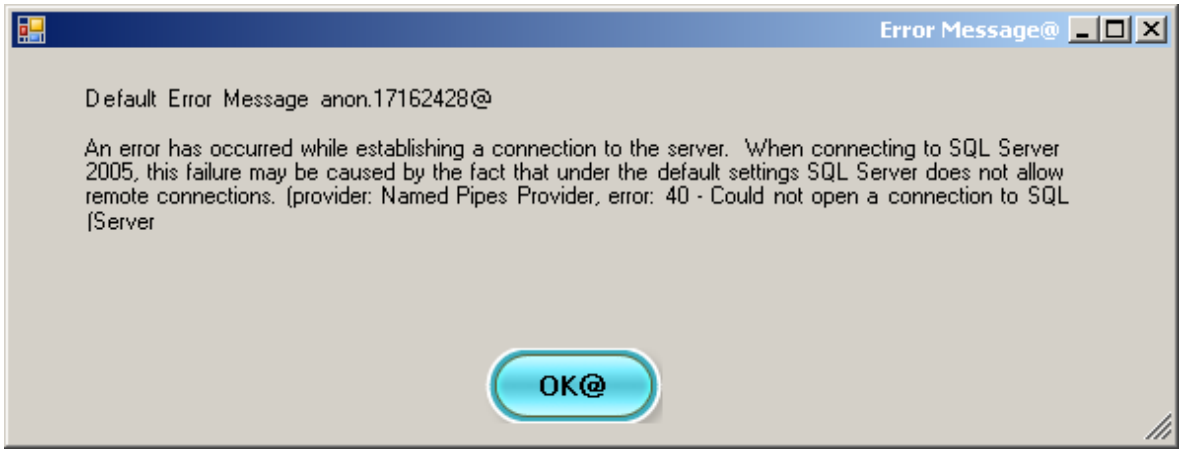
Possible reason: The connection to the database was lost or the connection details are not correct.

Solution: Follow the instructions in Chapter E: SQL Server Service Manager (section 25.3.2) to reestablish connection to the database. Check the setting as described in Chapter A: Connect to the Database (section 3.1).

Apply for System Administrator assistance, if the database is located on the network and not on the local PC.

GE2002: Error message when trying to load Touch

Problem: When trying to load Touch, I get the following error message:
"An error has occurred while establishing a connection to the server. When connecting…".


Error Message@
Default Error Message anon.17162428@
An error has occurred while establishing a connection to the server. When connecting to SQL Server 2005, this failure may be caused by the fact that under the default settings SQL Server does not allow remote connections. (provider: Named Pipes Provider, error: 40 - Could not open a connection to SQL Server
OK@

Possible reason: The connection to the database was lost or the connection details are not correct.

Solution: Follow the instructions in Chapter E: SQL Server Service Manager (section 25.3.2) to reestablish connection to the database. Check the setting as described in Chapter A: Connect to the Database (section 3.1).

Apply for System Administrator assistance, if the database is located on the network and not on the local PC.

GE2003: Database error message when trying to load Manage or Touch

Problem: When trying to load Manage or Touch, I get the following error message:
"The Database version is different from the application version!"

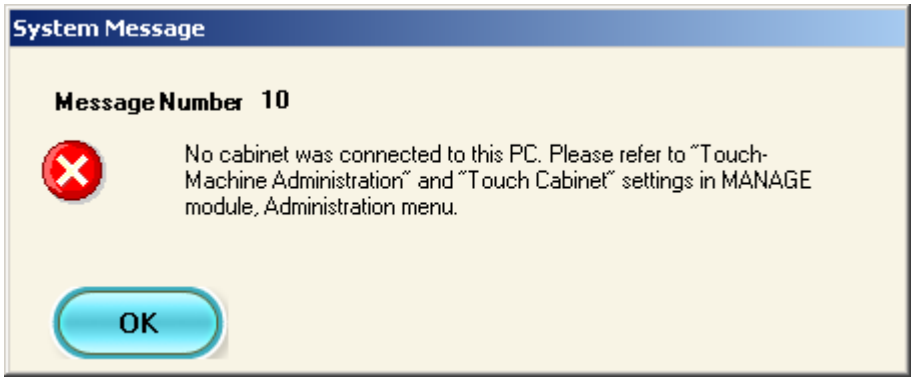




Possible reason: You tried to load a newer Matrix software version with database from older version.
Solution: Upgrade the database so that it is compatible to the newer version of the software. Please follow Chapter F: How to Upgrade the Database to the currently installed software (section 26.5). Otherwise use the older software version with the current database (not recommended).

GE2004: Error message #10 when trying to load Touch

Problem: When trying to load Touch, I get the following error message (number 10): "No cabinet was connected to this PC. Please refer to….".


System Message
Message Number 10
No cabinet was connected to this PC. Please refer to "Touch-Machine Administration" and "Touch Cabinet" settings in MANAGE module, Administration menu.
OK

Possible reason: The PC from which you are trying to run Touch was not defined in the database or no cabinets are connected to the PC name.
Solution: Set the touch definitions as described in Chapter A: Set TOUCH definitions (section 3.2.6).

27.3 Troubleshoot - Access to the Cabinet Hardware

This section describes problems that might occur in accessing cabinet / drawers / bins through the Touch module, and the software solutions for them.

For hardware solutions, please refer to MATRIX support.

GE3001: Error message #90005 - Command is already in queue - Device is busy

Problem: When trying to open a bin, I got the error message #90005.
Possible reason: Perhaps you tried to open a bin before the previous transaction was completed. For example: If the drawer was not closed.
Solution: Make sure that the drawers are closed. Reload Touch.

GE3002: Error message #90006 - Unable to open compartment

Problem: When trying to open a bin, I got the error message #90006.
Possible reason: Perhaps you tried to open a bin that has wrong coordinates definitions.
Solution: Check the bin units of this bin in the Manage → Cabinet Maintenance → Cabinet Units (Y / Z / X coordinates).

GE3003: Error message #90007 - No Connection to Cabinet / Drawer

Problem: When trying to open a bin, I got the error message #90007.
Possible reason: Perhaps the problem is with the **COM Port cable** that connects the PC to cabinet control system: **1)** The cable is not connected properly or; **2)** The cable is connected to the wrong port (there are usually 2 entries).
Solution: Verify that the cable is connected to the correct COM Port and tighten the connection.

GE3004: Error message #90008 - Problem with connection

Problem: I got the error message #90008.
Possible reason: Usually this message is displayed on the top of 'Setting' editor when trying to load software with faulty settings after which the Settings editor is opened.
Solution: Check that the settings to the database are correct and check that the SQL Server and Agent are running. See also solution for GE2001.

GE3005: Error message #90009 - Port Is Not Open

Problem: I got the error message #90009.

Possible reason: The **COM Port** defined in the Manage 'Cabinet Maintenance' screen **1)** Does not exist at all or; **2)** Is used by another device (like On-screen keyboard).
Solution: Check the 'COM Port' field in the 'Cabinet Maintenance' screen.

GE3006: Error message #90010 - No Answer from remote connection

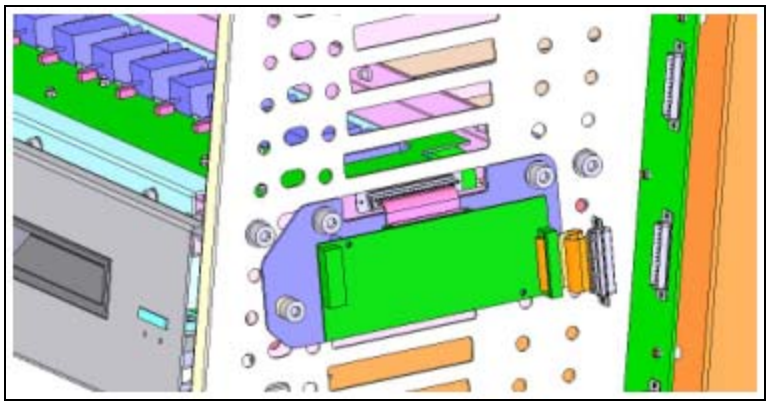
Problem: I got the error message #90010.
Possible reason: The COM Port defined in the 'Cabinet Maintenance' screen exists, but there is no access to it (not available, busy with something else or disconnected).
Solution: Check the cable connections.

GE3007: Error message #90013 - Port is not available

Problem: I got the error message #90013.
Possible reason: The port defined in Manage in the 'COM Port' field in the 'Cabinet Maintenance' screen does not exist.
Solution: Correct the port definition in Manage.

GE3008: The cabinet opens wrong drawer

Problem: When trying to open a bin, the system sends open command to wrong drawer.
Possible reason: Perhaps the controller plug-in height definition (the controllers relative plug-in position on the side board connections) is not correct.



Solution: Check the 'Y' position on the 'Cabinet Maintenance' screen → tab 'Cabinet Units' as also described in Chapter B: Tab: Cabinet Units (section 5.2.1.2).

27.4 Troubleshoot - Import of Data

GE4001: Error from 'Microsoft Jet database engine' when trying to import data

Problem: When I click the <Import> button on the import project, I get the following message: "The Microsoft Jet database engine cannot open the file ". It is already opened exclusively by another user, or you need permission to view its data."
Possible reason: The import file is not available for import.
Solution: Close the import file and run <Import> again.

GE4002: Error import result: "Column 'BIN_CODE' does not belong to table Table".

Problem: After the import is completed, in the result screen I get an error message that the column does not belong to table Table, for example: "Column 'BIN_CODE' does not belong to table Table."
Possible reason: The 'Column Name' that was defined in the import project was not found in the input file.
Solution: Verify that the column appears in the Excel file with the exact name, even if it is empty.

GE4003: Error import result: Error - Cannot perform '=' operation on System.Int32 and System.String

Problem: After the import is completed, I get the following error message in the result screen: "Error - Cannot perform '=' operation on System.Int32 and System.String".
Possible reason: You tried to import alpha-numerical data into field of numerical type or the opposite.
Solution: Use the matching input type. Follow the tables that describe the field types in Chapter D: Import Data (section 22).

GE4004: Error import result: 'Conversion from type 'DBNull' to type 'Integer' is not valid

Problem: After the import is completed, I get the following error message in the result screen: "Conversion from type 'DBNull' to type 'Integer' is not valid".
Possible reason: You tried to import an empty value into a field of numerical type.
Solution: Use the matching input type. Follow the tables that describe the field types in Chapter D: Import Data (section 22).

GE4005: Result message notifies about success, but no data seems to be imported

Problem: I get result message that the import data succeeded, but I see no data records when opening Search screens.
Possible reason: Perhaps there was input missing for mandatory fields (marked as 'Required' in the import project). The records were actually imported, but they cannot be displayed because of missing data.
Solution: In Chapter D: Import Data (section 22) follow the section which describes the format of input file.

GE4006: General import errors

Problem: Different errors in importing data.
Possible reason: Probably the format used for input does not match the accepted format.
Solution: Follow the Chapter D: Tables for Import (section 22.1) and the Chapter D: Tips for Preparing Input Data (section 22.2) to verify that you used the correct format in the input file.

27.5 Troubleshoot - Access to Data in TOUCH

GE5001: Expected item is not displayed on the Search screens

Problem: When opening a search screen on Touch, I could not find an item I expected to find.
Possible reason: Perhaps **1)** This item was not assigned to any bin or; **2)** This item was assigned to the bin of a cabinet which is not connected to this Touch station **3)** The bin to which the item was assigned does not have bin units.

Solution: **1)** Assign the item to a bin **2)** Check the touch definitions as described in Chapter A: Set TOUCH definitions (section 3.2.6). **3)** In MANAGE check if the bins containing this item have bin units (by 'Cabinet Maintenance' screen → 'Cabinet Units' tab or by 'Bin Maintenance' screen → 'Bin Units' tab or by 'Bin Units Report'). If not, add the bin units as described in Chapter B: Tab: Cabinet Units (section 5.2.1.2) and check the results on the TOUCH module.

GE5002: No bins are displayed or the expected bin does not appear

Problem: When I select an item to perform an operation on Touch, no bins are displayed or the expected bin is not displayed.
Possible reason: It may happen if **1)** The definitions of the bin do not fit with the operation you have tried to perform **2)** The bin does not have bin units **3)** There is no free space to store the item (Allow over capacity is not signed) **4)** The system options 904/905 block access to bins New/Used/Reworked
Solution: **1)** Check the definitions of the following fields on the 'Bin Maintenance' screen: fields 'Status', 'Consignment', 'Do not Issue', 'Used Item', 'Reworked' **2)** Check if the bin units exist **3)** Check the capacity of the bin **4)** Check the system option 904/905 together with fields 'Used Item' and 'Reworked'.

GE5003: The bin does not accept the quantity that I am trying to insert

Problem: I try to set the bin quantity without success.
Possible reason: It may happen if you have tried to fill a bin over its defined capacity.
Solution: Check the 'Capacity' and 'Allow Over Capacity' mark on the 'Bin Maintenance' screen.

27.6 Troubleshoot - General Issues

GE6001: Cannot export reports to Excel

Problem: Using Manage, I try to export basic and advanced reports to Excel, without success.

Possible reason: If Excel is not installed, it will export the list to the web browser. Otherwise, this may happen if the folder defined for the reports does not exist or does not have writing permissions.
Solution: Check if the folder defined in system option **401** (Report Path) exists on the PC. If yes, check the writing permissions with the System Administrator.

GE6002: No images of the Items and/or Groups are displayed on TOUCH

Problem: No images of the Items and/or Groups are displayed on Touch.
Possible reason: This may happen if the system options for the image files are not properly defined or the current user does not have reading permissions.
Solution: Check if the folders defined in system options **404** and **404** contain images. If yes, check the writing permissions with the System Administrator.